



U.S. Securities and Exchange Commission

Division of Investment Management: Report on Mutual Fund Fees and Expenses

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I. INTRODUCTION AND EXECUTIVE SUMMARY

This Report of the Division of Investment Management on Mutual Fund Fees and Expenses ("Report") presents our study of trends in mutual fund¹ fees and expenses² experienced over the past twenty years. We conducted our study of fees in light of: (1) the significant growth in the mutual fund industry during the period; (2) U.S. households' increasing reliance on mutual funds to finance retirement, housing, and children's education;³ (3) the significant impact that mutual fund fees and expenses have on investor returns; and (4) the ongoing debate over the appropriate level of mutual fund fees and expenses. We anticipate that the Report will be useful to Congress and the Commission in overseeing the mutual fund industry. Moreover, we believe that this information may be useful to members of the mutual fund industry, including fund directors, and to the investing public.

In Section I, we describe the background and scope of the Report and provide a summary of our findings. Section II describes the regulatory framework with respect to mutual fund fees and expenses. The section summarizes the corporate governance and disclosure standards that apply to fund fees and expenses, and explains how these standards have evolved to meet changes in the industry. The section also describes recent Commission initiatives regarding fund fees and expenses. Section III presents the trends in fees. The section illustrates the extraordinary growth in fund assets during the period covered by the study. The section also discusses the major changes in the manner that funds are organized and distributed and the rapid expansion in the variety of services that is commonly available to fund shareholders. Section IV describes our recommendations concerning the corporate governance structure for the oversight of fund fees and the disclosure that investors receive regarding fund fees.

A. Background and Scope of the Report

The U.S. mutual fund industry has grown dramatically over the past twenty years. Assets under management have grown from \$134.8 billion at the end of 1979 to \$6.8 trillion at the end of 1999, an increase of more than 4,900%.⁴ Over the same twenty-year period, the number of funds has increased from 564 to more than 7,700.⁵

Perhaps more significant than the growth in fund assets or the number of funds is the increasingly significant role of mutual funds as an investment vehicle for many Americans. Today, fund assets exceed the assets of commercial banks, with almost 88 million shareholders investing in mutual funds.⁶ The percentage of U.S. households that invest in funds has increased from 6% in 1980 to 49% today due to a number of factors, including relatively low interest rates for bank deposits and the popularity of Individual Retirement Accounts and 401(k) plans.⁷ The mutual fund industry accounts for 17% of total retirement assets and almost 42% of 401(k) assets.⁸

The growth of the fund industry has been accompanied by a debate over the

appropriate level of fund fees. The focus on fund fees is important because they can have a dramatic impact on an investor's return. For example, a 1% increase in a fund's annual expenses can reduce an investor's ending account balance in that fund by 18% after twenty years.

Some commentators argue that fund fees are too high. They claim that the growth in the fund industry has produced economies of scale and that funds have not passed on to shareholders the benefits of these economies of scale in the form of reduced fees.⁹ Others contend that fund fees are not too high and that shareholders today are getting more for their money -- more services, such as telephone redemption and exchange privileges, check or wire redemptions, and consolidated account statements, and greater investment opportunities, such as international and other specialized funds, which typically have higher operating costs than more traditional funds. They also contend that the average cost of investing in mutual funds has declined since 1980.¹⁰

In the most recent contribution to the public dialogue, the United States General Accounting Office issued a report that provides a wide-ranging analysis of mutual fund fees and the market forces and regulatory requirements that influence those fees.¹¹ The report's major conclusion is that additional disclosure could help to increase investor awareness and understanding of mutual fund fees and, thereby, promote additional competition among funds on the basis of fees. The report recommends that the Commission require that periodic account statements include additional disclosure about the portion of mutual fund fees that the investor has borne.

Our goal for this Report is to provide objective data describing trends in mutual fund fees that may be useful to Congress and the Commission in overseeing the mutual fund industry, and to others who are focusing on the effect of mutual fund fees on investor returns. As discussed more fully below, the Investment Company Act of 1940 ("Investment Company Act") does not give the Commission the direct role of arbiter in determining the appropriate level of fees to be paid by a mutual fund.¹² Rather, the regulatory framework generally allows the level of fund fees to be determined by marketplace competition and entrusts fund independent directors with the responsibility to approve and monitor the arrangements under which funds pay for investment advice or the distribution of their shares. Thus, we do not draw any conclusions in this Report as to the appropriate level of fund fees.

B. Summary of Findings and Recommendations

1. Summary of Findings

As described more fully in Section III, we observed the following from the data that we collected:

- Overall, mutual fund expense ratios (*i.e.*, a fund's total expenses, including rule 12b-1 fees, divided by its average net assets) have increased since the late 1970s, although they have declined in three of the last four years.

- Although fund expense ratios rose on average during the 20 years covered by our study, the overall cost of owning fund shares may not have risen if changes in sales loads are taken into consideration. (Sales loads are not taken into consideration when calculating expense ratios and have generally decreased during the period.)
- The increase in mutual fund expense ratios since the 1970s can be attributed primarily to changes in the manner that distribution and marketing charges are paid by mutual funds and their shareholders. Many funds have decreased or replaced front-end loads, which *are not* included in a fund's expense ratio, with ongoing rule 12b-1 fees, which *are* included in a fund's expense ratio. This change complicates the comparison of current expense ratios with expense ratios from earlier periods.
- Mutual funds with the largest proportion of defined contribution retirement plan assets (e.g., 401(k) plans) generally have lower expense ratios than other funds.
- Mutual fund expense ratios generally decline as the amount of fund assets increase.
- Specialty funds have higher expense ratios than equity funds, which, in turn, have higher expense ratios than bond funds. International funds have higher expense ratios than comparable domestic funds.
- Index funds and funds that are available only to institutional investors generally have lower expense ratios than other types of funds.
- In a sample of the largest 1,000 funds in 1999, funds that are part of large fund families (in terms of asset size) tend to have lower management expense ratios than funds that are part of small fund families. These findings may reflect economies for the investment adviser generally.
- In a sample of the 100 largest mutual funds, most funds have some type of fee breakpoint arrangement that automatically reduces the management fee rate as the asset-size of the individual fund or the fund family increases. Most funds in the sample with management fee breakpoints, however, have assets above the last breakpoint.

2. Summary of Recommendations

We believe that the current statutory framework's primary reliance on disclosure and procedural safeguards to determine mutual fund fees and expenses, rather than on fee caps or other regulatory intervention, is sound and operates in the manner contemplated by Congress. We believe, however, that the framework can be enhanced in certain areas. A brief summary of our recommendations follows. These recommendations are more fully discussed in Section IV.

a. Disclosure and Investor Education

Many observers give the Commission high marks for requiring funds to disclose information about their fees in a format that is understandable to investors and that facilitates comparison with the fees charged by other funds and other investment alternatives.¹³ The Commission should, nevertheless, consider whether requiring the disclosure of additional types of fee information would facilitate investors' awareness of fund fees and investors' ability to understand their effect. For example, the General Accounting Office recommended in its report that the Commission require mutual funds and/or broker-dealers to send fund shareholders account statements that include the dollar amount of the fund's fees that each investor has indirectly paid.¹⁴ The GAO report acknowledges however, that there are advantages and disadvantages to this recommendation and that other alternatives should be considered. We recommend that, because the recommended information could be disclosed in various ways, the Commission should evaluate the most effective way of disclosing fees and expenses that investors incur, taking into account the cost and burden that various alternative means of making such disclosures would entail.

We agree with the General Accounting Office that the fund industry and the Commission should encourage fund shareholders to pay greater attention to fees and expenses. We believe that changes to mutual fund disclosure requirements have generally produced the best results when the changes are designed to meet the information needs of investors and assist them in making better investment decisions. With respect to fund fees and expenses, we believe that investors need information, in addition to information about the dollar amount of fees, that helps them to understand the fees that they pay. Moreover, they need to be able to compare the fees of their fund to the fees of other funds and other types of investments. To satisfy these broader needs, we believe that any additional required fee information, including the dollar amount of fees, should be provided in semi-annual and annual shareholder reports. One advantage of this approach is that it would enable investors to not only compare the fees of funds but also to evaluate the fee information that would be contained in the reports to shareholders alongside other key information about the fund's operating results, including management's discussion of the fund's performance.

The additional information about actual costs could be presented in a variety of ways. One possible way to present the data would be to require shareholder reports to include a table showing the cost in dollars incurred by a shareholder who invested a standardized amount (e.g., \$10,000) in the fund, paid the fund's actual expenses, and earned the fund's actual return for the period.¹⁵ The Commission could require, in addition, that the table include the cost in dollars, based on the fund's actual expenses, of a standardized investment amount (e.g., \$10,000) that earned a standardized return (e.g., 5%). Because the only variable for this calculation would be the level of expenses, investors could easily compare funds to one another.

The full benefits of improved fee disclosure will not be realized without a strong investor education campaign. We recommend that the Commission continue its program (described in Section II) to improve the financial literacy of investors with respect to mutual funds and their costs. As new requirements to provide information about fund fees take effect, we recommend that the Commission develop educational materials that help investors understand how to make use of the new information, and

encourage funds, brokers, and others to do so as well.

For many fund shareholders, taxes on income dividends, capital gains distributions, and gains realized when shares are redeemed have a greater impact on the growth of their investment than does the fund's expense ratio.¹⁶ The Commission should adopt rules that would require mutual funds to report their investment returns on an after-tax basis, similar to or as proposed in March 2000.¹⁷

b. Fund Governance

We believe that the current statutory framework can be enhanced by strengthening the ability of independent directors to monitor fund fees and expenses. As described in Section II, the Commission took major action in this area in October 1999, when it proposed new rules and rule amendments designed to enhance the effectiveness of independent directors in dealing with fund management. We recommend that these proposals be adopted as soon as practicable, taking into account public comments on the proposals.

In addition to strengthening the ability of independent directors to deal with fund management, the Commission also should consider the following recommendations with respect to the regulatory framework for fees:

- The Commission should continue to emphasize that mutual fund directors must exercise vigilance in monitoring the fees and expenses of the funds that they oversee. Fund directors should, for example, attempt to ensure that an appropriate portion of the cost savings from any available economies of scale is passed along to fund shareholders. The Commission should continue to encourage efforts to educate directors about issues related to fund fees and expenses, including the types of information that they may request when they review the funds' management contracts, and the techniques that are available to evaluate the information that they receive.
- Fund directors, in addition to approving the management fee, may also approve a plan under Rule 12b-1 under the Investment Company Act to use fund assets to pay for distribution and marketing expenses. That rule is now twenty years old. The Commission should consider whether the rule needs to be modified to accommodate changes in the mutual fund industry.

We believe that these recommendations would provide fund shareholders with better information about mutual fund fees and would enhance the procedural safeguards that are provided by the oversight of independent directors and by SEC rules.

II. REGULATORY FRAMEWORK FOR MUTUAL FUND FEES AND EXPENSES

A. Historical Background

Over the past 60 years, Congress and the Commission have sought to protect the interests of fund investors with respect to fund fees and expenses by using a dual approach: (1) procedural safeguards to reduce the conflicts of interest that could lead to inappropriate or inflated fees; and (2) uniform disclosure of fees and expenses by funds to allow investors to make informed investment decisions. The dual approach has been enhanced over the years since passage of the Investment Company Act, and Congress and the Commission have continued to rely on this approach.¹⁸

1. Safeguards to Reduce Conflicts of Interest

A mutual fund has a unique structure. Although mutual funds generally are organized either as corporations or business trusts, they typically are not managed by their own officers and employees. Rather, a mutual fund usually is organized and operated by a separate legal entity that acts as (or is affiliated with) the fund's investment adviser.¹⁹ The investment adviser generally supplies the fund with its officers and employees and selects the original slate of directors for the fund.

This structure creates an inherent conflict of interest between the fund and its investment adviser because the directors of the fund (who typically have initially been selected by the adviser) approve the amount of the fees that the fund will pay to the adviser in exchange for all of the adviser's services to the fund. An investment adviser has an incentive to charge the highest possible fee for its services, while the fund and its shareholders wish to pay the lowest amount of fees possible because the fees directly reduce a fund's return on its investments.

Congress did not address this conflict by imposing fee caps or other direct regulation of fund fees and expenses.²⁰ Rather, Congress adopted certain provisions in the Investment Company Act to place fund directors that are not affiliated with a fund's management in the role of "independent watchdogs" who would "furnish an independent check upon the management" of mutual funds.²¹ Since its enactment, the Investment Company Act has required that no more than 60% of the members of a board of directors be, among other things, officers or employees of a fund or affiliated with the fund's investment adviser.²²

The Investment Company Act further requires that a majority of a fund's independent directors approve the contract between the investment adviser and the fund, and any renewals of the contract.²³ In evaluating whether to approve or renew the contract, the directors have a statutory duty to evaluate, and the adviser has a statutory duty to furnish, all of the relevant information that is needed to review the terms of the contract.²⁴ This evaluation typically consists of a review of the amount of the advisory fee paid by the fund, the services provided by the adviser, and the profitability of the fund to the adviser.²⁵

The Commission has followed the approach of relying on a fund's independent directors to police conflicts of interest between a fund and its affiliates regarding the use of fund assets to finance activities that are primarily designed to result in the sale of the fund's shares, *i.e.*, the expenses of distributing the fund's shares.²⁶ Pursuant to rule 12b-1 under the

Investment Company Act, a fund may adopt a 12b-1 plan to provide for the payment of distribution expenses. Because of the possible conflicts of interest involved in a fund's payment of distribution expenses, the Commission requires funds to follow procedures similar to those required by the Investment Company Act for the approval of an investment advisory contract.²⁷

In particular, rule 12b-1 requires that payments for distribution expenses be made pursuant to a written plan and that the plan be annually approved by a majority of the fund's independent directors.²⁸ Like advisory contracts, rule 12b-1 also requires shareholder approval of the plan and any amendments to the plan that materially increase the amount paid under the plan. When reviewing and approving rule 12b-1 plans, independent directors must decide, in the exercise of their reasonable business judgment and in light of their fiduciary duties under state law and under the Investment Company Act, that there is a reasonable likelihood that a plan will benefit the fund and its shareholders.²⁹

The Investment Company Act and the rules thereunder do not, however, expressly require a fund's independent directors to approve all of the service contracts of the fund. For example, a fund's independent directors are not expressly required by the Act to approve transfer agency contracts or administrative contracts. Absent some affiliation between a fund and a service provider, service contracts generally do not implicate the same conflict of interest concerns as investment advisory contracts. Directors, including independent directors, may nevertheless review and approve such service contracts, especially if a fund's adviser or an affiliate of the adviser provides the services under the contract.³⁰ Also, directors may need to review and approve service contracts in order to fulfill their duties as directors under state law.

In 1970, Congress amended the Investment Company Act to strengthen the ability of directors, particularly independent directors, to carry out their responsibilities to review and approve fund contracts.³¹ Among other things, Congress adopted Section 36(b) of the Investment Company Act, pursuant to which investment advisers have a fiduciary duty with respect to the receipt of compensation for services provided to a fund.³² An adviser's duty under section 36(b) applies to all of the fees that the adviser and its affiliates receive from a fund, including any distribution expenses such as rule 12b-1 fees.³³ Court decisions in cases alleging that an adviser breached its fiduciary duty with regard to compensation under section 36(b) provide a framework that many fund directors follow when they review advisory contracts.³⁴ In these cases, courts evaluated the facts and circumstances of the advisory contract to determine whether the adviser charged, "a fee that is so disproportionately large that it bears no reasonable relationship to the services rendered and could not have been the product of arm's-length bargaining."³⁵ The courts have considered the following factors when evaluating a section 36(b) claim:

- (1) the nature and quality of the services provided by the adviser, including the performance of the fund;
- (2) the adviser's cost in providing the services and the profitability of the fund to the adviser;

- (3) the extent to which the adviser realizes economies of scale as the fund grows larger;
- (4) the "fall-out" benefits that accrue to the adviser and its affiliates as a result of the adviser's relationship with the fund (e.g., soft dollar benefits);
- (5) performance and expenses of comparable funds; and
- (6) the expertise of the independent directors, whether they are fully informed about all facts bearing on the adviser's service and fee, and the extent of care and conscientiousness with which they perform their duties.³⁶

Most fund directors request data and other information that enable them to evaluate at least these factors in connection with the investment advisory or other contracts. In addition to obtaining data and information from the investment adviser, fund directors may seek data and other information from outside sources. For example, the directors may obtain material prepared by outside experts that may be used to compare the fund's performance, fee structures, and expenses to funds of comparable size and investment objective. Independent directors also may rely on independent counsel for advice and information in connection with the evaluation of the investment advisory and other service contracts.

2. Disclosure Requirements

The dual approach to regulating mutual fund fees and expenses also relies on fund investors to play a role in determining for themselves the appropriate level of fees and expenses. All funds are required to disclose their fees and expenses in a uniform manner so that an investor contemplating a fund investment today has access to comparable information about competing funds. This information helps investors to make better investment decisions.

In the 1980s, the Commission became concerned that investors could be confused if the increasing variety of sales loads and other fund distribution arrangements were not uniformly presented. For that reason, since 1988, Form N-1A (the form used by mutual funds to register their shares with the public) has required every mutual fund prospectus to include a fee table.³⁷ This table presents fund investors with expense disclosure that can be understood easily and that facilitates comparison of expenses among funds.³⁸

The fee table calls for a uniform, tabular presentation of all fees and expenses associated with a mutual fund investment. The fee table reflects both (i) charges paid directly by a shareholder out of his or her investment, such as front- and back-end sales loads, and (ii) recurring charges deducted from fund assets, such as advisory fees and 12b-1 fees. The table must be located at the beginning of the prospectus. It is accompanied by a numerical example that illustrates the total dollar amounts that an investor could expect to pay on a \$10,000 investment if he or she received a 5% annual return and remained invested in the fund for various time periods. As a result of the Commission's efforts in designing and implementing the fee table, information about mutual fund fees and expenses is accessible to prospective and existing investors.

In 1998, the Commission overhauled the prospectus disclosure requirements for mutual funds in order to provide investors with clearer and more understandable information about funds.³⁹ As part of those initiatives, the Commission improved fund fee disclosure. Those initiatives require mutual funds to include in the front portion of their prospectuses a risk/return summary in plain English that functions as a standardized "executive summary" of key information about the funds. The fee table is included in the plain English risk/return summary because of the Commission's belief that fees and expenses are crucial to an investor's decision to invest in a fund.⁴⁰ This reflects the Commission's commitment to promoting investors' access to fee information as a basis for a fund investment decision.⁴¹

B. Recent Commission Initiatives to Enhance the Regulatory Scheme

Congress and the Commission continue to monitor fund fees and expenses and to assess whether the regulatory framework should be enhanced. For example, in September 1998, the Subcommittee on Finance and Hazardous Materials of the Commerce Committee of the U.S. House of Representatives held a hearing on mutual fund fees and expenses at which Chairman Arthur Levitt and members of the industry testified. In his testimony, Chairman Levitt announced that the staff had commenced a report on fees and expenses.⁴² Chairman Levitt also discussed the steps being taken by the Commission in the area of mutual fund fees and expenses, which included evaluating the role of independent directors and enhancing investor understanding of fund costs. The Commission's recent initiatives in those areas are described below.

1. Enhancing the Role of Independent Directors

As discussed above, the independent directors of a fund play a significant role in monitoring fund fees and expenses, and the Commission recently has undertaken initiatives to strengthen the role of independent directors. In February 1999, the Commission hosted a two-day public Roundtable on the role of independent fund directors. Independent directors, investor advocates, executives of fund advisers, academics, legal counsel, and others examined the responsibilities of independent directors and discussed ways that the Commission might promote greater effectiveness of these directors, especially in approving investment advisory agreements and fees. One panel at the Roundtable was entitled "Negotiating Fees and Expenses." Roundtable participants generally agreed that independent directors can vigilantly represent the interests of fund shareholders only when they are truly independent of those who operate and manage the fund, and that the independence of fund boards should be encouraged.⁴³

In October 1999, the Commission proposed new rules and rule amendments to enhance the independence and effectiveness of mutual fund directors.⁴⁴ At the same time, the Commission published an interpretive release expressing the views of the Commission and Division staff concerning a number of issues that relate to independent fund directors.⁴⁵ Together, these initiatives are designed to reaffirm the important role that independent directors play in protecting fund investors, strengthen fund directors' hand in dealing with fund management, reinforce directors' independence and provide investors with additional information to assess directors' independence.

In addition, in October 1999, Chairman Levitt announced the creation of the Mutual Fund Directors Education Council, which is chaired by former SEC Chairman David S. Ruder and administered by Northwestern University. The Council was created in response to Chairman Levitt's call for improved fund governance. The Council fosters the development of programs to promote a culture of independence and accountability in fund boardrooms.

2. Enhancing Investor Understanding of Mutual Fund Costs

Through the Commission's disclosure efforts, mutual fund fee information is readily available to investors in an understandable, easy-to-use format in the new mutual fund prospectuses. The Commission continues to be concerned, however, that the typical investor is not using all of the resources that are available in considering investments in mutual funds. Thus, the Commission has mounted an extensive investor education campaign to improve the financial literacy of investors with respect to mutual funds and their costs.

For example, the Commission recently issued tips on mutual fund investing that remind investors that past performance should never be their only guide when choosing funds.⁴⁶ The Commission recommended that, in addition to reading the prospectus and shareholder reports, investors should assess a fund's costs because they can have an enormous impact on returns. The Commission's mutual fund tips also suggest that investors consider a fund's size, tax consequences, risks, and volatility.

Last year, the Commission launched the Mutual Fund Cost Calculator, an Internet-based tool that enables investors to compare the costs of owning different funds by entering data that generally is available in fund prospectuses. The Mutual Fund Cost Calculator also shows the total cost of owning a mutual fund after a specified period of time. It is available for free on the Commission's web site.⁴⁷

These recent investor education initiatives build upon prior initiatives of the Commission to promote financial literacy among investors. The Commission's web site contains, for example, an "Investment Options" page, which contains information on the benefits, risks, and costs of various investment vehicles, including mutual funds.⁴⁸ The page provides links to the Mutual Fund Cost Calculator and to a publication with frequently asked questions about mutual fund fees.⁴⁹ It also features the "Financial Facts Tool Kit," which contains information to assist investors in planning their financial future.⁵⁰ Investors can find on the Commission's web site a brochure about investing in mutual funds that contains a section on the importance of fees.⁵¹ Investors can also use the "Search Key Topics" databank on the Commission's website to learn more about the different types of mutual fund fees and expenses.⁵²

In addition, in March 1999, Congressman Paul Gillmor introduced the Mutual Fund Tax Awareness Act of 1999, which would require the Commission to revise its regulations to improve methods of disclosing to investors in mutual fund prospectuses and annual reports the after-tax effects of portfolio turnover on mutual fund returns. The legislation was approved by the House of Representatives in the 106th Congress. The Commission recently also proposed to improve disclosure to investors of the effect of taxes on the

performance of mutual funds.⁵³

Finally, we note the presence of market trends that may be the result of increased investor awareness of funds' expenses. Three fund groups that have been characterized as featuring relatively low costs⁵⁴ have increased their share of total fund assets from 17% at the beginning of 1990 to more than 27% at the end of 1999.⁵⁵ Competitive pressures within the industry appear to be prompting an increasing number of fund mergers as fund sponsors attempt to streamline their offerings and eliminate uneconomical funds. Competition also has increased because of the offering of low-cost exchange traded funds (ETFs), which are pooled vehicles generally sponsored by large broker-dealers and stock exchanges that allow investors to buy and sell the funds' shares at any time during the day at market prices. In addition to competing among themselves, mutual funds face increased competition from sources outside of the fund industry.⁵⁶

- On-line trading: Due to the low cost of trading on-line, many investors now prefer to construct their own investment portfolios in lieu of relying on mutual funds.
- Individual accounts: Advances in technology enable investment advisers and broker-dealers to extend individual account management services to clients and customers with smaller accounts than had been economically feasible in the past. Individual accounts allow for more personalized investment management and tax planning services than are possible in a pooled vehicle such as a mutual fund.
- New "mass customized" products: Several new Internet-based firms take the individual account concept a step further. One firm, for example, enables individual investors to buy pre-constructed baskets of stocks with preselected characteristics in terms of risk, type of issuer, etc. Alternatively, the investor can utilize the firm's web site to create his or her own customized basket of stocks.⁵⁷

These emerging products and services, and others not yet developed, and their sponsors may exert additional pressure on mutual fund fees and the Commission will need to closely monitor them to ensure that they are appropriately regulated.⁵⁸ If investors are to benefit from the increased competition, investor education must play a major role by helping investors to understand the characteristics, risks, and costs associated with the ever-increasing number of investment alternatives.

III. STUDY OF TRENDS IN MUTUAL FUND FEES AND EXPENSES

A. Introduction

1. Objectives

The Division initiated its study of mutual fund fees and expenses ("fee study") in response to significant growth in the mutual fund industry and significant changes in the manner in which funds operate. Our objectives are to provide summary data about the current level of mutual fund fees and expenses, describe how fee levels have changed over time, and identify some of the major factors that have influenced the amount of fees charged. In

order to examine trends over time, we analyze the expenses of all stock and bond funds for the following years: 1979, 1992, and 1995 through 1999. We use 1979 as a benchmark because it is the year before rule 12b-1 distribution fees were first permitted. We analyze data for 1992 because it is the first year for which we have expense data in electronic format. We analyze data for 1995 through 1999 to get a more recent picture of trends in fund expenses. Our purpose is not to determine whether mutual fund fees are too high or too low, but to determine how fees have changed over time and what factors have affected those changes.

2. Presentation of Results

The presentation of fee study results is organized in the following manner. First, we discuss issues related to methodology and data sources. We identify the costs that are included in a fund's expense ratio and the costs that are excluded. We then examine trends in the number of funds, assets under management, expense ratios, methods of distribution, and types of investment objectives offered. Next, we use an econometric model to examine which factors are statistically important in explaining the differences in mutual fund operating expense ratios. Following that, we examine whether mutual fund management expense ratios⁵⁹ decline as fund assets increase and investigate the extent to which fee breakpoint provisions are included in the management contracts between funds and their investment advisers. Finally, we examine the expenses of the largest mutual funds in the retirement market.

B. Methodological Issues

Mutual fund investors and industry analysts usually evaluate the fees and expenses of an individual fund by comparing its expense ratio (total expenses divided by average net assets) to the expense ratios of other funds or by looking at how the fund's expense ratio has changed over time. Investors and analysts usually evaluate the fees and expenses of the fund industry as a whole by looking at the average expense ratio of all funds (or all funds in a given category, e.g., equity funds) and noting how this figure has changed over time. We believe that although expense ratios are important, it can be misleading to focus on one number without also identifying key factors that influence that number. In this study, we attempt to identify some of the key factors that may affect mutual fund expense ratios.

1. What Costs are Included in a Fund's Expense Ratio?

It is difficult to compare the fees and expenses paid by funds because the manner in which funds pay for services and the nature of the services provided vary widely. Sometimes, the cost of all services provided to the fund and its shareholders is included in a fund's expense ratio. Other times, the expense ratio excludes the cost of some services, such as marketing or financial advice, because they are not paid for by the fund; instead they are paid by the individual shareholder. Although no standard method exists for classifying the services provided in connection with buying and owning a mutual fund, one possible approach is shown in Chart 1.

Chart 1
The Mutual Fund "Bundle of Services"

Type of service	How Paid For	Include in Expense Ratio?
1. investment management (i.e., "portfolio advice")	management fee	Yes
2. administration and recordkeeping	management fee, fees to service providers	Yes
3. buying and selling securities	commissions, bid-asked spreads	No
4. distribution and marketing	sales charge, 12b-1 fee, adviser profits	12b-1 fee, yes; otherwise, no
5. financial advice/planning	sales charge; 12b-1 fee; separate fee or commission paid to a broker, financial planner, or investment adviser; wrap fee	Sometimes
6. consolidated statements and other services provided by a "mutual fund supermarket"	supermarket receives portion of management fee, 12b-1 fee, or adviser profits	Yes (unless paid from adviser profits)

Before looking at the expense ratio numbers, it is useful to identify in greater detail the costs that are included in a fund's expense ratio and the costs that are excluded.

A fund's expense ratio is its total expenses divided by average net assets. Form N-1A, the mutual fund registration form, divides total expenses into three categories: management fees, rule 12b-1 fees, and other expenses. *Management fees* include investment advisory fees and administrative or other fees paid to the investment adviser or its affiliates for services.⁶⁰ *Rule 12b-1 fees* include all distribution or other expenses incurred under a plan adopted pursuant to rule 12b-1.⁶¹ *Other expenses* include all expenses not included in the first two categories that are deducted from fund assets or charged to all shareholder accounts. Typical "other expenses" include payments to transfer agents, securities custodians, providers of shareholder accounting services, attorneys, auditors, and fund independent directors. A mutual fund's expense ratio does not include the sales load (if any) or the cost that the fund incurs when it buys or sells portfolio securities, such as brokerage commissions. As described in the following section, fund marketing and distribution expenses are increasingly paid out of 12b-1 fees rather than out of sales loads -- a change that has had a large impact on expense ratios.

2. The Changing Role of Distribution Expenses

The past two decades have seen significant changes in the way that investors pay for the marketing and distribution of fund shares. Any analysis of mutual fund expenses must take into account the effect of these changes.⁶²

Prior to 1980, most mutual funds were load funds, so-named because they were marketed by a sales force of brokers who received a commission (load) when shares were sold.⁶³ The remaining funds (no-load funds or directly marketed funds) were sold by investment advisory firms directly to the public without a sales load. The more limited sales expenses of no-load funds (primarily advertising) were paid by the funds' investment advisers or underwriters, out of their own profits. In other words, prior to 1980, irrespective of whether a fund was a load or a no-load fund, distribution expenses were not included in the fund's expense ratio.

In 1980, after much debate, the Commission adopted rule 12b-1, which permits funds to pay for marketing and distribution expenses directly out of their assets.⁶⁴ Since 1980, marketing and distribution expenses paid under rule 12b-1 have been included in a fund's expense ratio in the same manner as any other fund expense. Sales loads, on the other hand, continue to be excluded from a fund's expense ratio because loads are paid directly by investors and not by the fund.

Although initially few funds adopted 12b-1 plans, the number of funds with plans increased during the mid-1980s⁶⁵ as sponsors of load-funds developed a new pricing arrangement in which the combination of a 12b-1 fee and a contingent deferred sales load (CDSL) replaced the traditional front-end load.⁶⁶ A CDSL is a sales load that is paid, if at all, at the time of redemption. A CDSL is "contingent" because the sales load is paid only if the shares are redeemed before a specified period of time (often 5-8 years). These CDSL funds are sold by the same brokers who sell traditional load funds, but the investor does not pay a sales load at the time that shares are purchased. Instead, the investor pays an annual 12b-1 fee or a contingent deferred sales load if shares are redeemed within a specified period of time.⁶⁷ The 12b-1 payments made by CDSL funds are included in their expense ratios.

As CDSL funds became more popular, the NASD, with the approval of the Commission, determined that 12b-1 fees should be governed by the rules that apply to sales loads.⁶⁸ After careful consideration, the NASD determined that funds should pay no more than 100 basis points in 12b-1 fees, 75 basis points of which could be for distribution expenses and 25 basis points for service fees annually.⁶⁹ In addition, the NASD determined that a fund with no sales load and a 12b-1 fee of 25 basis points or less could identify itself as a no-load fund.

In view of the changes described above, some observers of the fund industry, including the industry's largest trade association, argue that any overall evaluation of the fees and expenses borne by fund shareholders should consider trends in total shareholder cost -- a measure that includes the cost of services paid for separately by the shareholder (most notably, distribution costs paid via sales loads) as well as the costs included in a fund's expense ratio. Although we believe that the total shareholder cost approach has considerable merit, we focus primarily on expense ratios in this study for two reasons. First, our goal is to analyze trends in fees and expenses that are

incurred at the fund level and paid directly out of fund assets. Second, two data items that play a key role in total shareholder cost analysis-- actual sales loads paid by fund investors, and the actual length of time that investors hold their shares - are not publicly available.⁷⁰

3. Data Sources/Explanation of Data Items

Expense ratio and other data were collected for all stock and bond funds in our database at the end of 1979, 1992, 1995, 1996, 1997, 1998, and 1999.⁷¹ Data for 1979 were taken from *Weisenberger's Investment Company Services, 1980*; data for 1992 and 1995 through 1999 were taken from *Morningstar Mutual Funds OnDisc* and *Morningstar Principia Pro*.⁷² Money market funds, another major segment of the mutual fund industry, were excluded from this study because of their different cost structure. Therefore, in this report, the terms "mutual fund" and "fund" include all mutual funds that are not money market funds. Also excluded from this study are the underlying mutual funds of insurance company separate accounts, closed-end investment companies, and face amount certificate companies.

A key issue is whether to evaluate the expense data at the level of the fund or at the level of the class. As previously indicated⁷³ some funds issue only one share class (single-class funds or stand-alone funds); other funds issue two or more classes (multi-class funds). The multi-class form of organization is designed to provide investors with more choices. For example, different share classes may offer varying levels of service or alternative ways to pay for the cost of distributing the fund's shares.⁷⁴ Because of the differences among the classes, each class has its own fee structure and expense ratio, and shareholders investing in different classes pay different expenses for an undivided interest in the same portfolio of securities. Consequently, the data reported for a multi-class fund is not the fund's expenses and assets, but rather the expense ratio of each separate class and its related assets.

A multi-class fund actually incurs most of its operating expenses at the fund level, and then allocates these expenses among the fund classes, often based on the relative asset-size of each class. The magnitude of these expenses tends to be influenced by the asset-size of the fund and not the asset size of the various classes.⁷⁵

We believe, therefore, that when an expense analysis includes the relationship between funds' expense ratios and their asset sizes, it is appropriate to evaluate the asset-size of multi-class funds at the fund level. We use this approach in Section III.D (A Model for Estimating a Fund's Expense Ratio).⁷⁶ In contrast, when the expense analysis focuses on the amount of expenses paid by fund shareholders, we believe it is more appropriate to perform the analysis at the class level. Accordingly, in Section III.C (Factors That Affect Fees: Descriptive Statistics) we evaluate multiple class funds at the class level -- *i.e.*, we consider each class to be a separate data item, with its own assets and its own expense ratio.

In most cases, our study analyzes expense data for all funds or classes in existence at the end of the year.⁷⁷ In three cases, because the relevant information had to be collected by hand, we limited the analysis to a sample of large classes.

- Our analysis of management expenses is based on a sample of the 1,000 largest classes in existence at the end of 1999.⁷⁸ The 1,000 classes represented approximately 82% of all class assets in 1999. The smallest class in this sample had assets of \$704 million.
- Also with respect to management expenses, we examined the management contracts of the 100 largest mutual funds in 1999 for evidence of fee "breakpoints."⁷⁹ The 100 largest funds had total assets of \$1.8 trillion in 1999 and represented 42% of all fund assets.
- We analyzed the expense ratios of the 50 funds with the most 401(k) assets in 1999. The 50 funds had total assets of \$935 billion and represented 21% of all fund assets.

C. Factors that Affect Fees: Descriptive Statistics

1. Mutual Fund Growth

The mutual fund industry grew at an extraordinary rate during the 20 years covered by our study ("study period"). The number of stock and bond classes in the study went from 517 in 1979 to 8,901 in 1999 -- an increase of 1,622% (Table 1). Assets under management soared from \$51.7 billion in 1979 to \$4,456.6 billion in 1999 -- an increase of 8,520%. In terms of both number of classes and total assets, the greatest portion of the growth took place between 1992 and 1999.

Table 1
Mutual Fund Growth

	Number of Classes	Total Assets (\$ Billions)
1979	517	51.7
1992	2,483	982.6
1995	6,682	2,074.4
1996	6,965	2,370.3
1997	6,991	3,001.5
1998	8,423	3,558.9
1999	8,901	4,456.6

2. Expense Ratio Trends: All Classes

During the study period, the expense ratio of the average class ("equally weighted average") rose from 1.14% in 1979 to 1.36% in 1999 (Table 2). However, because investment dollars are spread unevenly among classes -- the largest 100 classes account for 42% of all assets and the largest 1,000 classes account for 82% of all assets -- an equally weighted average may not be the best indicator of what the typical investor is being charged. The computation of an equally weighted average gives the same importance to a small class (net assets \$100,000) as it does to the largest class (net assets \$92 billion).⁸⁰

Table 2
 Expense Ratio Trends: All Classes

	Unweighted Average Expense Ratio	Weighted Average Expense Ratio
1979	1.14%	0.73%
1992	1.19%	0.92%
1995	1.30%	0.99%
1996	1.32%	0.98%
1997	1.33%	0.95%
1998	1.35%	0.91%
1999	1.36%	0.94%

We believe that evaluations of fund fees should generally give more weight to classes with more assets (and more shareholders). The typical fund investor is likely to own one of the larger classes, and to be charged an expense ratio at a large class's rate.

Weighting expense ratios by class size, we find that the expense ratio of the average class rose from 0.73% in 1979 to 0.99% in 1995, fell in 1996, 1997 and 1998 to 0.91%, and then rose to 0.94% in 1999.⁸¹ Although we find that the weighted expense ratio has increased since 1979, it is important to understand why this has occurred. In the sections that follow, we discuss changes in the fund industry that might explain this increase.

3. Expense Ratio Trends by Distribution Category

As previously described, a series of changes in mutual fund distribution patterns has blurred the lines between formerly distinct marketing categories -- load vs. no-load. Today, the no-load category includes directly distributed classes with and without 12b-1 fees, as well as certain classes of sales force distributed funds in which marketing expenses are reduced or eliminated because the class is sold only to selected groups such as institutional investors or retirement plans.⁸² The load category now includes classes with 12b-1 fees higher than 25 basis points, classes with 12b-1 fees and CDSLs, and classes with traditional front-end loads. Although the load category consists mostly of classes distributed by commissioned sales people or financial advisers, it includes some directly distributed funds.

In recognition of these changes, we divide classes into two categories for the purpose of analyzing trends in distribution expenses.

- *No-load*: With respect to data for 1979 and 1992, this category consists of classes that have no sales load and no 12b-1 fee ("pure no-load classes"). With respect to data for 1995 through 1999, this category consists of classes that may call themselves no-load under current NASD rules -- *i.e.*, pure no-load classes and classes that have no sales charge at the time of purchase or redemption, but can have a 12b-1 fee of up to 25 basis points.⁸³
- *Load*: fund classes that have a sales load, a 12b-1 fee of more than 25 basis points, or both.

Tables 3 and 4 show how the number and total assets of load and no-load classes have changed over time. The trend in the study period is a gradual decline in the proportion of load classes and a faster decline in their proportion of assets. In 1999, for the first time, load classes had fewer assets, 49%, than no-load classes.

Table 3
Number of Classes by Distribution Category

	No-Load Classes	Load Classes	Load Classes Percent of Total
1979	201	316	61%
1992	763	1,720	69%
1995	2,380	4,302	64%
1996	2,506	4,459	64%
1997	2,576	4,415	63%
1998	3,229	5,184	62%
1999	3,418	5,483	62%

Table 4
Class Assets by Distribution Category (\$ Millions)

	No-Load Classes	Load Classes	Load Classes Percent of Total
1979	\$15,451	\$36,204	70%
1992	\$254,441	\$728,162	74%
1995	\$916,401	\$1,158,001	56%
1996	\$1,076,530	\$1,293,730	55%
1997	\$1,384,483	\$1,617,017	54%
1998	\$1,751,804	\$1,807,092	51%
1999	\$2,259,836	\$2,196,776	49%

Table 5 shows the trend in average expense ratio by distribution category over the study period. (Expense ratios are weighted by asset size in all cases.) The expense ratio of the average no-load class rose from 75 basis points in 1979 to 80 basis points in 1992, before declining to 76 basis points in 1995, 75 basis points in 1996, 72 basis points in 1997, 68 basis points in 1998 and then increasing to 72 basis points in 1999.

In 1979 -- prior to the onset of 12b-1 fees -- the average load class had a lower expense ratio (72 basis points) than the average no-load class (75 basis points). From 1979 to 1992, load class expense ratios rose 24 basis points, on average, primarily because of the inclusion of 12b-1 fees in the expense ratio. Load class expense ratios increased another 21 basis points by 1995 (to 1.17%) before falling to 1.14% in 1997, 1.12% in 1998, and increasing to 1.17% in 1999.

Table 5
Weighted Average Expense Ratios by Distribution Category

	No-Load Classes	Load Classes
1979	.75%	.72%
1992	.80%	.96%
1995	.76%	1.17%
1996	.75%	1.17%
1997	.72%	1.14%
1998	.68%	1.12%
1999	.72%	1.17%

4. Total Ownership Costs

The results summarized in Table 5 do not take into account the decline in front-end sales loads that accompanied the increase in 12b-1 fees. The median front-end sales load (before quantity discounts) fell from 8.5% in 1979 to 4.75% in 1999.⁸⁴ Some industry participants argue that evaluations of mutual fund expense trends should take into account all costs that a shareholder would expect to incur in purchasing and holding class shares ("total ownership costs"). Total ownership costs include fund operating expenses, 12b-1 fees, and sales loads.⁸⁵

As part of this study, we performed a simplified analysis of total shareholder costs. The results are shown in Table 6. A key issue for any study that employs a total ownership cost approach is how to treat the sales load paid to purchase fund share classes. The analysis requires two data items that are not publicly available: the actual loads paid by investors (dollar amount or percentage of amount invested)⁸⁶ and actual shareholder holding periods.⁸⁷

Because we do not have access to data that reflect actual sales loads paid or actual holding periods of fund investments, we make certain simplifying assumptions, which make the analysis less precise. We assume that shareholders hold their shares for either 5 or 10 years.⁸⁸ We also assume that all investors pay the maximum front-end sales load. Using these assumptions, we then amortize the maximum sales load by dividing the sales load by the holding period. Finally, the amortized sales load is added to the expense ratio to arrive at the total asset weighted shareholder cost.

Table 6 indicates that the magnitude of total shareholder costs depends heavily on the amortization period chosen. Amortizing the average maximum sales load over a 5-year holding period shows that total shareholder costs for load classes have declined 18% between 1979 and 1999 -- from 2.28% to 1.88%. If the longer holding period of 10 years is picked, however, total shareholder costs remained basically unchanged between 1979 and 1999.

Table 6
Total Ownership Costs for Load Classes

	Number of Classes	Assets (\$ Millions)	Weighted Expense Ratio with 5 Year Amortization of Sales Load	Weighted Expense Ratio with 10 Year Amortization of Sales Load
1979	316	\$36,204	2.28%	1.50%
1992	1,720	\$728,162	1.79%	1.41%
1995	4,302	\$1,158,001	1.88%	1.53%
1996	4,459	\$1,293,730	1.89%	1.53%
1997	4,415	\$1,617,016	1.87%	1.50%
1998	5,184	\$1,807,092	1.83%	1.47%
1999	5,483	\$2,196,776	1.88%	1.52%

5. Expense Ratio Trends by Type of Investment

At the beginning of the study period, the mutual fund industry generally invested in U.S. securities and did not offer specialized funds. During the 1980s and 1990s many fund sponsors broadened their product lines in an effort to attract new assets and retain assets already under management.⁸⁹ This strategy led to the introduction of two new major fund categories: international funds and specialty funds.⁹⁰

In 1979, bond fund classes accounted for 38% of classes and 33% of assets, while equity fund classes accounted for 62% of classes and 67% of assets (see Tables 7 and 8). By 1992, bond classes had overtaken stock classes to become the largest fund category and international classes (10% of classes; 6% of assets) and specialty classes (6% of classes; 3% of assets) had become a significant part of the fund landscape.

Table 7
Number of Classes

	Bond Classes	Equity Classes	International Classes	Specialty Classes
1979	196	321	-	-
1992	1,277	805	255	146
1995	3,559	1,891	931	301
1996	3,579	2,029	1,044	313
1997	3,389	2,141	1,118	343
1998	3,823	2,743	1,406	451
1999	3,956	3,011	1,460	474

Table 8
Total Assets
(\$ Millions)

	Bond Classes	Equity Classes	International Classes	Specialty Classes
1979	\$17,037	\$34,618	-	-
1992	\$522,049	\$363,861	\$65,083	\$31,610
1995	\$732,472	\$999,772	\$273,956	\$68,200
1996	\$776,106	\$1,196,436	\$317,676	\$80,042
1997	\$856,279	\$1,664,553	\$374,760	\$105,907
1998	\$990,132	\$2,056,137	\$391,574	\$121,053
1999	\$944,435	\$2,705,494	\$564,215	\$242,470

Seven years later, a bull market in equities enabled stock fund classes to become the largest category in terms of assets although bond fund classes still accounted for the largest number of classes. In 1999, stock fund classes accounted for 61% of assets compared to 21% for bond fund classes. Bond fund classes accounted for 44% of classes in 1999 and stock fund classes accounted for 34%. International fund classes grew steadily during the study period until they accounted for 16% of classes and 13% of assets, while the number of specialty fund classes stayed level at 5%, but their assets grew to 5% of total assets.

It is generally believed that equity funds are more expensive to manage than bond funds and that international and specialty funds are more expensive to manage than equity funds.⁹¹ Equity funds are thought to be more expensive to manage because of the increased research costs associated with picking stocks. Similarly, international funds are thought to incur additional costs over and above domestic equity funds because of the increased difficulty of researching international companies. Some of the increased cost results from the need to review and understand foreign accounting statements and to obtain company information not required to be disclosed under foreign securities laws. Custody costs generally are higher, as well.

The results shown in Table 9 are consistent with the opinions described above. Table 9 indicates that bond fund classes have lower expense ratios than equity fund classes, and that international and specialty fund classes have higher expense ratios than bond and equity fund classes. This fact, coupled with the increase in assets of equity, international, and specialty fund classes, helps explain some of the increase in mutual fund expenses.

Table 9
 Weighted Average Expense Ratio
 By Type of Fund

	Bond Classes	Equity Classes	International Classes	Specialty Classes
1979	0.70%	0.74%	-	-
1992	0.82%	0.95%	1.36%	1.31%
1995	0.84%	0.98%	1.31%	1.37%
1996	0.84%	0.96%	1.31%	1.34%
1997	0.83%	0.91%	1.24%	1.35%
1998	0.80%	0.88%	1.18%	1.30%
1999	0.80%	0.90%	1.18%	1.36%

6. Expense Ratio Trends by Class Age

Another common explanation for rising expense ratios is that large numbers of new funds have pushed up the averages. Commentators say that new funds often have higher expense ratios because they have not yet reached the critical size needed to pass on economies to their shareholders.⁹²

Table 10 tends to confirm the notion that new fund classes have higher expense ratios. The average expense ratio (weighted by asset size) of classes that have been in existence 5 years or less is 1.23%, compared to 1.10% for classes in existence between 6-10 years, and 0.80% for classes in existence for more than 10 years.⁹³

Table 10
Years in Existence

Years in Existence	Number of Classes	Assets (\$ Millions)	Weighted Expense Ratio
1-5	3,873	589,846	1.23%
6-10	3,433	1,241,081	1.10%
Greater than 10	1,595	2,625,692	0.80%

7. Expense Ratio Trends by Class Size

The previous table indicates that expense ratios seem to be inversely correlated with age. That is, as classes get older they have lower expense ratios. Some industry commentators have suggested that the recent creation of newer smaller classes tends to increase the weighted expense ratio. Table 11 attempts to determine the relationship between class asset-size and expense ratios.

Table 11
Class Size

Assets (\$ Millions)	Number of Classes	Assets (\$ Millions)	Weighted Expense Ratio
1-10	2,031	7,644	1.61%
11-50	2,326	60,404	1.42%
51-200	2,186	230,775	1.25%
201-1,000	1,586	706,922	1.14%
Greater than 1,000	772	3,450,868	0.87%

Table 11 divides all classes in 1999 into five groupings by asset size. As can be seen in the table, classes in the largest size category -- assets greater than \$1 billion -- hold more than two-thirds of all fund assets. The data show that there is, in fact, an inverse relationship between size category and expense -- as the size category increases, expense ratios fall.

D. A Model for Estimating a Fund's Expense Ratio

1. Introduction

In Section C we found that the level of a class's expense ratio seems to depend on the following factors: asset size, age, investment category, and method of distribution. Because these factors appear to be important in explaining the magnitude of expense ratios at the class level, we sought to obtain more precise information about their impact.

To achieve this end, we built an econometric model of the relationship between the expense ratios of mutual fund classes and the factors described in Section C, as well as a few others. Our model hypothesizes that expense ratios of mutual fund classes can be explained by the following 11 factors: (1) fund asset size; (2) fund family asset size; (3) number of funds in its fund family; (4) portfolio turnover; (5) number of portfolio holdings; (6) fund age; (7) investment category; (8) method by which it finances distribution; (9) whether or not it is an index fund; (10) whether or not it is an institutional fund or class; and (11) whether it is part of a multi-class fund.⁹⁴ We used the model to analyze expense data for the 8,901 classes in our database in 1999.

2. Results of Econometric Model of Expense Ratios

We used our econometric model (see Appendix One, Regression Table) to analyze the expense ratio and operating expense ratio of classes in our database in 1999.⁹⁵ As indicated previously, a fund's *expense ratio* is defined as its total expenses, including rule 12b-1 fees, divided by its average net assets. A fund's *operating expense ratio* is defined as its total expenses minus rule 12b-1 fees divided by its average net assets. In our analysis of total expenses (column 1) we observe that the maximum 12b-1 factor tends to explain the variance in total expenses due to actual 12b-1 fees and that the other factors explain only that part of the variance in total expenses that is due to differences in operating expenses. So the coefficients for the independent variables (except for the maximum 12b-1 fee) represent the influence of these variables on the operating expense ratio, not the total expense ratio.

We found that the following factors are important in explaining variations among fund operating expense ratios.⁹⁶ Or, to put it another way, we found statistically significant relationships⁹⁷ between the operating expense ratios of funds⁹⁸ and the following factors.⁹⁹

- *Fund Assets*: As fund assets increase, a class's operating expense ratio decreases.
- *Fund Family Assets*: As fund family assets increase, a class's operating expense ratio decreases.
- *Number of Funds in a Fund Family*: As the number of funds in a fund family increases, a class's operating expense ratio decreases.
- *Fund Category*: Equity funds have higher operating expense ratios than bond funds; specialty funds have higher operating expense ratios than equity funds; international funds have higher operating expense ratios

than comparable domestic funds.

- *Index Funds:* Index funds have lower operating expense ratios than other funds.
- *Institutional Funds:* Institutional funds and classes have lower operating expense ratios than other funds and classes.
- *Load:* Funds or classes with front-end loads have lower operating expense ratios than no-load funds and classes.
- *12b-1 Fees:* Classes that are authorized to have 12b-1 fees have expense ratios that are higher than other classes by an amount equal to about 93% of the maximum authorized 12b-1 fee.
- *Portfolio Turnover:* As portfolio turnover increases, a fund's operating expense ratio increases.
- *Portfolio Holdings:* As the number of portfolio holdings increases, a fund's operating expense ratio increases.
- *Multi-Class Funds:* Multi-class funds have higher operating expenses than single class funds.
- *Fund Age:* Older funds have higher operating expenses than younger funds.

The remainder of this section discusses the above results in more detail, using examples based on the data for 1999.

a. Fund Size

Other things held equal, a fund with assets of \$10 million had an operating expense ratio that was 22 basis points lower than a similar fund with assets of \$1 million. (Table 12). A fund with assets of \$1 billion had an operating expense ratio that was 66 basis points lower than a similar fund with assets of \$1 million.¹⁰⁰

Table 12
Relationship Between Fund Size and Operating Expense Ratio

Increase in Fund Asset Size	Change in Operating Expense Ratio (basis points)
from \$1 million to \$10 million	-22
from \$1 million to \$1 billion	-66

b. Fund Family Asset-Size

In 1999, other things held equal, a fund's operating expense ratio fell 68 basis points if the total assets of its fund family rose from \$1 million to \$10 million (Table 13). A fund's operating expense ratio fell 75 basis points if fund family assets rose from \$1 million to \$10 billion.¹⁰¹

Table 13
Relationship Between Fund Family Asset Size and Operating Expense Ratio

Increase in Fund Family
Asset Size:

Change in Operating Expense Ratio
(basis points)

Increase in Fund Family Asset Size:	Change in Operating Expense Ratio (basis points)
from \$1 million to \$10 million	-.68
from \$1 million to \$10 billion	-.75

c. Investment Category

A very important factor in predicting a fund's operating expense ratio is its investment category. In 1999, bond funds were the lowest cost investment category. Other things held equal, in 1999 an equity fund had an operating expense ratio that was 44 basis points higher than a bond fund; a hybrid fund had an operating expense ratio that was 22 basis points higher than a bond fund; and a specialty fund had an expense ratio that was 62 basis points higher than a bond fund. These results are applicable to funds that invest primarily in securities issued by United States issuers. With respect to funds that invest primarily in securities issued by non-United States issuers, an international equity fund had an expense ratio that was 82 basis points higher than a domestic bond fund and an international bond fund had an expense ratio that was 31 basis points higher than a domestic bond fund.

d. Index, Institutional, and Multi-Class Funds

In 1999, other things held equal, the operating expense ratio of an index fund was 45 basis points lower than an equivalent fund that was not an index fund. The operating expense ratio of an institutional fund or class was 22 basis points lower than an equivalent fund or class that was not limited to institutional investors. Finally, a multi-class fund had an operating expense ratio that was 14 basis points higher than an equivalent single-class fund.

e. Number of Funds in a Fund Family

In 1999, other things held equal, a fund with ten funds in its family had an operating expense ratio that was 14 basis points lower than a fund with only 1 fund in its fund family (Table 14). A fund with 100 funds in its family had an operating expense ratio that was 28 basis points lower than a fund with 1 fund in its fund family.

Table 14
Relationship Between Fund Family Number and Operating Expense Ratio

Increase in Fund Family Number	Change in Operating Expense Ratio (basis points)
from 1 fund to 10 funds	-.14
from 1 fund to 100 funds	-.28

f. Portfolio Turnover Rate

Portfolio turnover rate measures the average length of time that a security remains in a fund's portfolio. A fund that has a 100% portfolio turnover rate holds its securities for one year, on average. A fund with a portfolio turnover rate of 200% turns over its portfolio twice a year. In 1999, other things held equal, a fund with a portfolio turnover rate of 100% had an operating expense ratio that was 30 basis points higher than a similar fund with a portfolio turnover ratio of 1%. A fund with a portfolio turnover ratio of 200% had an expense ratio that was 4 basis points higher than a similar fund with a portfolio turnover ratio of 100%.

g. Number of Portfolio Holdings

Other things held equal, a fund that held 100 securities in its investment portfolio had an operating expense ratio that was 8 basis points higher than a similar fund that held 10 securities in its portfolio. A fund with 1,000 portfolio securities had an operating expense ratio that was 16 basis points higher than a fund with 10 portfolio securities.

h. Fund Age

Other things held equal, the operating expense ratio of a 10 year-old fund was 11 basis points higher than that of a 1 year-old fund in 1999; and the operating expense ratio of a 20-year-old fund was 4 basis points higher than that of a 10-year-old fund. Although the results indicate a positive relationship between age and expenses, the results appear to be driven at least in part by four older funds that have higher expenses than their peers. When the four funds are removed from the database, the positive relationship between a fund's age and operating expense ratio became considerably weaker.

i. Payment for Distribution Expenses: 12b-1 fee

The coefficient for the variable representing the maximum allowable 12b-1 fee is 0.93. This coefficient is statistically different from both 0 and 1.0. This indicates that, everything else equal, funds with 12b-1 fees had total expenses that were higher than those of other funds, but by an amount that was slightly less than the maximum 12b-1 fee.¹⁰² This may have occurred because funds do not always charge a 12b-1 fee, even if such a fee is approved, or charge less than the maximum fee. In addition, some funds with 12b-1 fees may use these fees to pay for expenses that other funds may consider part of operating expenses. In these latter cases, the imposition of a 12b-1 fee might reduce operating expenses slightly.

j. Payment for Distribution Expenses: Sales Load

In 1999, other things held equal, the operating expense ratio of a fund with a front-end sales load was 6 basis points lower than the operating expense ratio of an equivalent fund.

The results from our model confirm that the factors identified in Section C are important in explaining a fund's operating expense ratio. We next turn our attention to mutual fund management expenses and focus on the relationship between a fund's portfolio asset size and its management expense ratio.

E. A Model for Estimating a Fund's Management Expense Ratio

1. Introduction

Evidence developed above indicates that as mutual funds' assets grow larger, their *operating expense ratios* decline. In order to determine whether a similar pattern exists with respect to mutual fund *management expenses*,¹⁰³ we hand-collected management expense data for the largest 1,000 classes in existence in 1999 and used a similar econometric model to analyze the data.¹⁰⁴ The model is the same as previously described with one exception. This time, the dependent variable is the fund's management expense ratio. We are interested in a fund's management expense ratio because it includes the cost of providing the fund with portfolio management services -- *e.g.*, conducting research, maintaining a trading desk, managing the investment portfolio in accordance with stated investment objectives and policies. Most observers believe that portfolio management is the fund cost with the greatest economies.¹⁰⁵ Although we cannot analyze directly the cost of providing portfolio management services to a mutual fund in order to determine whether economies exist (because the data are unavailable), we can do the next best thing. We can analyze portfolio management costs indirectly by using the management fee charged to a fund by its adviser as a proxy for the adviser's cost of providing portfolio management services. Unfortunately, the proxy is far from perfect because management fees often pay for other services as well.¹⁰⁶

One piece of evidence for the existence of economies in portfolio management is that many mutual fund management contracts contain fee breakpoints. Fee breakpoints are an arrangement under which the management fee rate on incremental assets is reduced as total fund assets surpass specified dollar levels.¹⁰⁷

Breakpoints were first introduced during the 1960s after shareholders of investment companies sued over the fairness of advisers' fees.¹⁰⁸ Although the management fee was not found to be "legally excessive" in any of the cases that came to trial, many other cases were settled before trial and the adoption of management fee breakpoints was often a condition of those settlements.¹⁰⁹

In our analysis we are interested in seeing whether fund management expense ratios decline as fund assets increase and breakpoints in management contracts are triggered.

2. Results of Regression Model of Management Expense Ratios

Our analysis produced interesting results. The management expense ratio of the 1,000 largest funds in 1999 did not show a statistically significant decline as *fund* assets grow, but rather, showed a statistically significant decline as *fund family* assets grew (see Appendix One). Other things held equal, a fund's management expense ratio fell 11 basis points in 1999 as fund family assets rose from \$1 million to \$10 million. A fund's management expense ratio fell 42 basis points as fund family assets rose from \$1 million to \$10 billion.¹¹⁰

Table 15
Relationship Between Fund Family Asset Size and Management Expense Ratio

Increase in Fund Family Asset Size:	Change in Mgmt. Exp. Ratio (basis points)
from \$1 million to \$10 million	-11
from \$1 million to \$10 billion	-42

These results seem to indicate that, among large funds, economies in management expenses are present at the fund family level rather than at the fund level.¹¹¹

F. Evidence of Breakpoints in Management Fees

In order to obtain additional information about the extent to which economies are present in management fees, we examined the management contracts of the 100 largest mutual funds in 1997, 1998, and 1999 for evidence of management fee breakpoints.¹¹² Because management contracts are generally based on the total assets in a fund portfolio, we added together all the classes of multi-class funds to select the 100 largest funds.

An analysis of the management contracts of these funds produced some interesting results. Our analysis shows that not all management contracts incorporate fee breakpoints as fund assets increase. Instead, we observe contracts with five types of arrangements: 1) fee breakpoints based on fund assets (fund breakpoints); 2) fee breakpoints based on portfolio assets plus a performance fee (fund breakpoints-plus); 3) fee breakpoints based on fund family assets (fund family breakpoints); 4) a single, all-inclusive fee (single fee); and 5) at-cost arrangements. In addition, we observe that for funds with fund breakpoint or fund breakpoint-plus contracts, a substantial proportion of their assets are not subject to any further breakpoint reductions (Table 16). The remainder of this section discusses the different types of management contracts.

Fund breakpoint contracts have management fees that decline at selected asset intervals based on the asset size of the fund. Forty-seven funds in our analysis, with assets of \$855.2 billion, have fund breakpoint contracts. The median number of breakpoints for the 47 funds is six. For these funds, the median asset-size level at which the first breakpoint takes effect is \$500 million and the median asset-size at which the last breakpoint takes effect is \$10 billion. The median management fee at the first breakpoint is 65 basis points and the median management fee at the last breakpoint is 41 basis points. Thirty-four funds have assets that exceed their last breakpoint. For

these 34 funds, the combined assets that are not subject to any further breakpoints total \$318 billion.

Table 16
Management Fee Breakpoints
1999

Type of Fee	Number of Funds	Total Assets (in Billions)	Funds with Assets Above Last Breakpoint	Total Assets Above Last Breakpoint (in Billions)
Fund Breakpoints	47	855.2	34	318.2
Fund Family Breakpoints	21	506.3	0	0
Fund Breakpoints - Plus	8	113.9	5	41.1
Single Fee	19	376.0	Na	na
At-Cost	5	204.7	Na	na

Fund family breakpoint contracts include breakpoints based on the asset size at the fund family level together with a single rate fee or a performance fee at the fund level. Twenty-one funds in our analysis, with assets of \$506.3 billion, have a fund family fee. The median number of breakpoints at the fund family level is 37, with the first breakpoint at \$3 billion in fund family assets and the last breakpoint at \$1.2 trillion of fund family assets. The median fee rate for the first breakpoint is at 52 basis points and the median fee rate for the last breakpoint is 22 basis points. No funds have assets that exceed the last breakpoint.

Mutual funds that have fund breakpoints-plus contracts have an asset-based fee with breakpoints at the fund level and a separate fee that varies with the fund's investment performance. Eight funds in our analysis, with assets of \$113.9 billion, have fund breakpoint-plus contracts. The median number of breakpoints is 4, with the first breakpoint at a fund asset-size of \$150 million and the last breakpoint at a fund asset-size of \$10 billion. For the median fund in this category, the first breakpoint is at fee rate of 27.5 basis points and the last breakpoint is at a fee rate of 11.3 basis points. Five funds have a combined \$41.1 billion of assets that exceed the asset level of the last breakpoint.

Single fee contracts do not employ breakpoints. Nineteen funds in our analysis, with assets of \$376 billion, have single fee management contracts. The median fee rate for single fee management contracts is 65 basis points, with a high of 100 basis points and a low of 24 basis points.

Five funds in our analysis have "at-cost" arrangements. For these funds, the management fee is not a function of asset size of the fund, asset size of the fund family, or the fund's investment performance. These funds have combined assets of \$204.7 billion.

G. Expenses of the Largest Mutual Funds in the Retirement Market

Americans entrust a significant portion of their retirement savings to mutual funds. As of December 31, 1999, mutual funds held \$2.4 trillion (19%) of the

\$12.7 trillion in US retirement assets.¹¹³ Retirement assets represent more than one-third of total fund assets.

Retirement assets invested in mutual funds come primarily from 401(k) plans and other defined contribution arrangements, individual retirement accounts (IRAs), and variable annuities outside of retirement accounts. Over 40 percent of defined contribution plan and IRA assets are invested in mutual funds.

Because concern has been expressed about the level of 401(k) plan expenses, we sought to gain some insight into the level of expenses charged to 401(k) plans that invest their assets in mutual funds.¹¹⁴ Toward that end, we selected a sample of 50 funds with the most 401(k) assets (retirement-oriented funds) and compared their expenses to those of all funds. The retirement-oriented funds manage \$340 billion in 401(k) assets and \$993 billion of assets from all sources. For almost all funds in the sample, 401(k) assets represent a large portion of total assets. The average retirement-oriented fund derives 34% of assets from 401(k) plans, with the high being 95%, and the low 11%. Twelve retirement-oriented funds derive more than half of their assets from 401(k) plans.

Retirement-oriented funds do not have higher expenses than the average fund. In fact, the *equally-weighted average* expense ratio for retirement-oriented funds (96 basis points or 0.96%) is 28% below the average expense ratio for all mutual funds (1.35%). The *asset-weighted average* expense ratio for retirement-oriented funds is 24% below the average expense ratio for all funds (69 basis points compared to 91 basis points). It is likely that the primary reason why retirement-oriented funds have lower expense ratios is their size. The average retirement-oriented fund has \$19.9 billion in assets, compared to \$423 million for all funds.

H. Summary of Results

Our goals in conducting this study were to provide summary data about the current level of mutual fund fees, describe how fee levels have changed over time, and identify some of the major factors that influence the current amount of fees charged. Some of the more significant findings are summarized below.

- Mutual fund expense ratios have declined in three of the last four years after increasing significantly since the late 1970s. The asset-weighted average expense ratio for all stock funds and bond funds fell to 0.94% in 1999 from 0.99% in 1995. Asset-weighted average expenses, however, are 21 basis points higher than they were during the late 1970s (Table 2).
- Mutual fund expenses vary with the following factors:
 - *A fund's asset size:* As fund assets increase, the operating expense ratio declines.
 - *A fund's investment category:* Specialty funds have higher operating expense ratios than equity funds, which, in turn, have higher operating expense ratios than bond funds. International funds have higher operating expense ratios than comparable domestic funds.

- *Whether a fund is an index fund or an institutional fund:* Index funds and funds that are available only to institutional investors generally have lower operating expense ratios than other types of funds.
- *Asset size of the fund group:* On average, members of the smallest fund families have higher operating expenses than other funds.
- *Amount of portfolio turnover:* Funds with higher portfolio turnover tend to have higher operating expense ratios.
- Funds that are part of large fund families (in terms of asset-size) tend to have lower management expense ratios than funds that are part of small fund families. These findings may reflect economies for the investment adviser generally.
- The management fee schedules of most large funds have some type of fee breakpoint arrangement. Most funds with management fee breakpoints have assets above the last breakpoint.
- The average expense ratio (weighted by fund asset size) of the 50 funds with the most 401(k) assets is 22 basis points lower than the average expense ratio of all funds.

IV. CONCLUSION AND RECOMMENDATIONS

The current regulatory framework for mutual fund fees relies on a combination of disclosure, investor education, and procedural safeguards. To further improve the effectiveness of the current framework, we have the following recommendations.

A. Disclosure and Investor Education

1. Dollar Amount of Fund Fees

In its June 2000 report on mutual fund fees, the General Accounting Office recommended that the Commission require mutual funds and/or broker-dealers to send fund shareholders account statements that include the dollar amount of the fund's fees that each investor has indirectly paid. The GAO report surmises that adding personalized expense information to fund account statements may prompt fund shareholders to pay more attention to fees and to compare their fund's fees and services with those of similar funds, thus encouraging more fee-based competition among funds. The report acknowledges that requiring funds and/or broker-dealers to provide this information would impose additional costs on the industry because funds would have to change their account management systems to collect and calculate information that is not currently maintained. The GAO also recommends that the Commission consider alternatives that may provide similar information at lower cost, and identifies two such alternatives.

The GAO report identifies two alternatives that may merit further study. One alternative would be to multiply the fund's per share asset value by the fund's expense ratio, multiply the result by the average number of shares an investor owned during the period, and show the result in the investor's

account statement. This alternative would provide each shareholder with an approximation of the dollar amount of fund expenses that he or she indirectly paid. A second alternative would be to provide information about the dollar amount of fees that were paid during the period for preset investment amounts, such as \$1,000. Investors could use the results to estimate the amount they paid on their own accounts. The report notes that the Commission would need to weigh the costs of each approach against the benefits of the additional information to investors.

As the Commission considers how to best disclose to investors the fees and expenses that they incur with investment in a fund, including whether it would be appropriate for fund account statements to include personalized information about expenses or other fund-related data, it will need to consider the advantages and disadvantages of each alternative. For example, providing fund shareholders with personalized information, expressed as a dollar amount, about the fees and expenses that they paid indirectly during the year might increase shareholder awareness of fund fees and expenses. On the other hand, fees and expenses would need to be presented on a standardized basis - *i.e.*, as a percentage of fund assets, for a defined time period, calculated in a manner that is uniform for all funds. Finally, as indicated in the GAO report, the compliance cost associated with a new personalized expense disclosure requirement, which ultimately would be borne by fund shareholders, may be considerable. Computer programs that perform shareholder accounting functions would have to be revised and other costs would be incurred. Administrative difficulties would present an additional obstacle. Shareholder accounting often is performed not by the fund, but by a broker-dealer who, in many cases, has no affiliation with the fund. Moreover, many investors hold their shares in omnibus accounts with broker-dealers. These broker-dealers do not have the information that would be needed to calculate the dollar amount of fees attributable to individual fund shareholders and would have to develop interfaces with the record owners of these accounts.

We believe that an approach that is based on the second alternative suggested by the GAO is likely to have the most favorable trade-off between costs and benefits. That alternative would provide information about the dollar amount of fees paid for preset investment amounts. Specifically, we recommend that information about the dollar amount of fees and expenses be presented in a fund's shareholder reports, so that investors can evaluate the information alongside other key information about the fund's operating results, including management's discussion of the fund's performance. In effect, shareholders would be able to evaluate the costs they pay against the services they receive. We also recommend that some or all of the information about the dollar amount of fees should be calculated in a manner that makes it easy for investors to compare the fees charged by their fund with the fees charged by other funds. Although our recommendation could be implemented in a variety of ways, we believe that the general approach embodied in our recommendation will encourage investors to incorporate information about the dollar amount of fund fees into their decision-making process.

Our approach would be to require fund shareholder reports to include a table that shows the cost in dollars associated with an investment of a standardized amount (*e.g.*, \$10,000) that earned the fund's actual return for the period and incurred the fund's actual expenses for the period. The Commission could require, in addition, that the table include the cost in dollars, based on the fund's actual expenses, of a standardized investment

amount (e.g., \$10,000) that earned a standardized return (e.g., 5%). This approach would provide additional information about fund fees, provide it in terms of dollar amounts, and provide it in a standardized manner that would facilitate comparison among funds. (The only variable in this calculation would be the level of expenses).¹¹⁵

Disclosure about fees and investor education about fees go hand-in-hand. As the primary information source for most fund investors, the mutual fund industry - funds, brokers, and other financial professionals - must play a major role in increasing investor awareness and understanding of fund fees. The fund industry should expand its efforts to educate investors about SEC-mandated disclosures and other information they can use to identify the fees that they pay, compare funds to each other and to other investment alternatives with respect to the level of fees, and consider the effect that fees will have in reducing the amount of wealth they may be accumulated as a result of an investment.¹¹⁶ The Commission has an important role to play, as well, and should continue its ongoing program (described in Section II) to improve the financial literacy of investors with respect to mutual funds and their costs. As the fee information described above (or other similar information required by the Commission) begins to appear in fund disclosure documents, the Commission should develop educational materials that help investors understand how they can use the new information. Also, as mutual fund fee structures become more complex, the Commission may be able to help investors make better-informed decisions. For example, although multiple share classes offer investors additional choices, investors may be confused by the various fund classes and find it difficult to determine which class represents the best value for their particular circumstances. Because the selection of the appropriate class of shares to invest in can be a complicated decision that generally depends on the unique circumstances of an investor, further investor education concerning these issues would be beneficial.

2. After-Tax Return

We recommend that the Commission adopt proposed amendments to our rules and to Form N-1A, the registration form for mutual funds, that would require disclosure of standardized mutual fund after-tax returns. Although fund expenses play a key role in determining ultimate shareholder wealth, taxes play an even larger role for many investors in mutual funds. A major accounting firm found, for example, that taxes reduced the investment performance of the median domestic stock fund by 2.6% per year.¹¹⁷ For comparison, we find in our fee study that the median expense ratio for all stock funds in 1999 was 1.3% per year and the weighted average expense ratio (See Section III, Table 9) was 0.90% per year. Due to the significant impact that taxes have on investors, we believe that investors would benefit greatly by receiving better disclosure concerning the effect of tax expense on returns.

B. Fund Governance

1. Role of Independent Directors

We believe that the current regulatory framework would be enhanced by independent directors who more actively monitor fund fees and expenses.

In its October 1999 proposal of new rules and rule amendments, the Commission sought to strengthen the hand of independent directors in dealing with fund management and to provide fund shareholders with greater information to make their own assessment of the directors' independence. We recommend that the Commission consider these proposals as soon as practicable after the Commission staff finishes its review of comments from the public and the industry.

Of particular importance is the proposal that would, in effect, require that independent directors (directors not associated with the fund's management) comprise at least a majority of the members of fund boards. In our view, a fund board that has at least a majority of independent directors is likely to do a better job of representing the interests of fund shareholders than a board that has a lesser percentage of independent directors. An independent director majority would be able to elect officers of the fund, call meetings, solicit proxies, and take other actions without the consent of the adviser.¹¹⁸ The ability of a board to act without the approval of the inside directors should better enable it to exert a strong and independent influence over fund management. This is particularly true when the board considers the investment advisory fee rate, a situation in which the fund's interests conflict with those of the adviser. Although most funds already have boards with an independent majority, the proposals would ensure that shareholders of all funds that rely on certain Commission exemptive rules (virtually all funds) have the benefits of a board with an independent majority.

Fund directors also can strengthen their hand by educating themselves about issues concerning mutual fund fees and expenses.¹¹⁹ In particular, we recommend that fund directors focus further on the costs of providing investment management services and, in particular, on whether the funds that they oversee experience any economies of scale. In our study, we found that, for large funds, management expense ratios declined as fund family assets grew. We also found that the management expense ratios of large funds declined as individual fund assets grew, but the decline was not statistically significant. These results suggest that, in certain instances, economies of scale may be experienced primarily at the fund family level and only to a lesser extent or not at all at the fund level. Conclusions as to why economies of scale would be experienced in this way, however, cannot be drawn without knowing what the costs of supplying particular services were to the investment advisory firms.¹²⁰

At the fund level, however, fund directors can obtain information about the cost of providing investment management services to the funds that they oversee. Fund directors can use this information to evaluate whether the funds that they oversee are experiencing any economies of scale and to assist them in ensuring that fund shareholders share in the benefits of any reduced costs. Whether increases in assets of a fund or fund family produce economies of scale is a factor that may influence fund directors' views on, among other things, the amount of fees that the fund should pay for advisory and other services and whether a rule 12b-1 plan for the fund is appropriate.

If the fund or fund family is experiencing economies of scale, fund directors have an obligation to ensure that fund shareholders share in the benefits of the reduced costs by, for example, requiring that the adviser's fees be lowered, breakpoints be included in the adviser's fees, or that the adviser

provide additional services under the advisory contract. If the fund or fund family is not experiencing economies of scale, then the directors may seek to determine from the adviser how the adviser might operate more efficiently in order to produce economies of scale as fund assets grow. We believe that fund directors who ask pertinent questions about investment management costs can more effectively represent the interests of the shareholders they represent.

We believe that fund directors would benefit from learning about the types of information that they can review when making their decisions, including information that would enable them to determine whether their funds are experiencing any economies of scale. We believe that fund directors also would benefit from knowing about other sources of data and information that would enable them to compare the costs of investment management of the funds that they oversee with those of other funds. Fund directors who are equipped with this information can more effectively represent the interests of the fund's shareholders when setting and re-approving advisory and other fees.

Not all costs associated with investment in a mutual fund are paid for via the fund's expense ratio. The cost of effecting the fund's portfolio transactions, for example, is reflected in the amount paid when the fund buys or sells portfolio securities.¹²¹ For many funds, the amount of portfolio transaction costs incurred during a typical year is substantial.¹²² Clearly, fund directors should focus on portfolio transaction costs.¹²³ As they review fund transaction costs, fund directors should pay particular attention to soft dollar practices -- arrangements under which the fund's investment manager obtains, from or through a broker dealer, products or services other than execution of securities transactions. The manager obtains these services in exchange for allocating client brokerage transactions to the broker-dealer.¹²⁴

In addition to reviewing soft dollar practices, fund directors should carefully consider directed brokerage arrangements. Under a directed brokerage arrangement, the fund asks the investment adviser to direct securities transactions to a particular broker that has agreed to provide services, pay for services provided by others, or make cash rebates to the fund. Funds typically enter into directed brokerage arrangements to offset fund expenses, such as audit, legal, and custodial fees. Although directed brokerage does not involve the conflicts posed by soft dollars, it does raise issues related to how a fund's assets are being expended and other issues, including disclosure.¹²⁵

2. Rule 12b-1

We recommend that the Commission consider whether it would be appropriate to review the requirements of rule 12b-1 that govern how funds adopt and continue their rule 12b-1 plans. We believe that modifications may be needed to reflect changes in the manner in which funds are marketed and distributed and the experience gained from observing how rule 12b-1 has operated since it was adopted in 1980.¹²⁶ The rule essentially requires fund directors to view a fund's 12b-1 plan as a temporary measure even in situations where the fund's existing distribution arrangements would collapse if the rule 12b-1 plan were terminated. Under the rule, fund directors must adopt a 12b-1 plan for not more than one year, may terminate the plan even before the end of that year, and must consider at least annually whether the plan should be continued.¹²⁷

In addition, many directors believe that when they consider whether to approve or continue a 12b-1 plan, they are required to evaluate the plan as if it were a temporary arrangement.¹²⁸ The adopting release for rule 12b-1 included a list of factors that fund boards might take into account when they consider whether to approve or continue a rule 12b-1 plan.¹²⁹ Many of the factors presupposed that funds would typically adopt rule 12b-1 plans for relatively short periods in order to solve a particular distribution problem or to respond to specific circumstances, such as net redemptions.¹³⁰ Although the factors are suggested and not required, some industry participants indicate that the factors are given great weight by fund boards. Some argue that the recitation of the factors impedes board oversight of rule 12b-1 plans because the temptation to rely on the factors, whether they are relevant to a particular situation or not, is too great to ignore.¹³¹ Although the factors may have appropriately reflected industry conditions as they existed in the late 1970s, others argue that many have subsequently become obsolete because, today, many funds adopt a rule 12b-1 plan as a substitute for or supplement to sales charges or as an ongoing method of paying for marketing and distribution arrangements.¹³²

The mutual fund industry utilizes a number of marketing and distribution practices that did not exist when Rule 12b-1 was adopted. For example, as described in Section III, many funds offer their shares in multiple classes -- an organizational structure that permits investors to choose whether to pay for fund distribution and marketing costs up-front (via front-end sales charge), over time from their fund investment (via 12b-1 fee), when they redeem (via deferred sales charge), or in some combination of the above.¹³³ Rule 12b-1 plans are integral to these arrangements -- they are the means by which the brokers that sell fund shares under these arrangements are paid. Some industry observers argue that fund principal underwriters and boards of directors may have good reason to view this type of 12b-1 plan as an indefinite commitment because a multi-class distribution arrangement could not continue to exist if the associated rule 12b-1 plan were terminated or not renewed.

Other funds offer their shares primarily through fund supermarkets -- programs sponsored by financial institutions through which their customers may purchase and redeem a variety of funds, with or without paying transaction fees. (Fund supermarkets are popular because they enable investors to consolidate their holdings of funds from different fund groups in a single brokerage account and to receive a consolidated statement listing all fund holdings.)¹³⁴ Many funds that offer shares through fund supermarkets adopt rule 12b-1 plans to finance the payment of fees that are charged by the sponsors of fund supermarkets. Some may argue that because these 12b-1 plans are essential to the funds' participation in fund supermarket programs, these 12b-1 plans may be legitimately be viewed as indefinite commitments. In addition, because most funds pay fees to fund supermarkets for a mixture of distribution and non-distribution services, it can be difficult to determine when and how rule 12b-1 applies to these fees. Although the Division has provided additional guidance about what constitutes a distribution expense,¹³⁵ questions still remain about how to determine whether a particular activity is primarily intended to result in the sale of fund shares, and therefore must be covered by a rule 12b-1 plan.

A third significant change in distribution practices is that some fund

distributors are now able to finance their efforts by borrowing from banks, finance companies, or the capital markets because they can use anticipated 12b-1 revenues as collateral, or as the promised source of payment.¹³⁶ If a fund adopts a 12b-1 plan, the right of its distributor to receive future 12b-1 fees from the fund is an asset of the distributor. Some distributors borrow from banks, finance companies, or other financial intermediaries, using this asset as collateral. Other distributors issue debt securities (asset-backed securities) for which the payment of principal and interest is backed by the distributors' contractual right to receive a stream of future 12b-1 fees.¹³⁷ Although the independent directors of a fund have the legal right to terminate a fund's rule 12b-1 plan, the independent directors may be less likely to do so if the fund's future 12b-1 fees have been pledged to secure a bank loan or to pay principal and interest due on asset-backed securities.¹³⁸

Because of these issues, the Commission should consider whether to give additional or different guidance to fund directors with respect to their review of rule 12b-1 plans, including whether the factors suggested by the 1980 adopting release¹³⁹ are still valid. The Commission also should consider whether the procedural requirements of Rule 12b-1 need to be modified to reflect changes in fund distribution practices that have developed since the rule was adopted twenty years ago or may be developed in the future.

Over the past 60 years, the Commission has sought to protect the interests of fund investors with respect to fund fees and expenses through a combination of procedural safeguards to prevent conflicts of interest from resulting in excessive fees, full disclosure to make fund fees and expenses more transparent and easier to compare, and educational efforts designed to make investors more aware of the importance of fees and better able to use the fee disclosures that are available. We continue to believe that this approach is sound and is consistent with the regulatory framework established by Congress. We believe, however, that improvements can be made. The recommendations described above would provide investors with better information about fund fees, energize fund directors to take a more active role in monitoring fees, and enhance the Commission's ongoing efforts to improve investors' financial literacy with respect to mutual funds and their costs.

V. APPENDIX ONE: REGRESSION TABLE

Sample is all classes of funds covered by Morningstar as of March 1999. Assets is Ln of fund assets. Famsize is 1/assets of fund family. Famnum is Ln of funds in the family. Turnover is Ln of class's turnover. Holdings is Ln of number of portfolio holdings. Age is Ln of fund age. Domestic equity is a indicator variable (1=domestic equity, 0=all others). Hybrid is an indicator variable (1=domestic hybrid fund, 0=all others). International bond is an indicator variable (1=international bond fund, 0=all others). International equity is an indicator variable (1=international equity fund, 0=all others). Specialty is an indicator variable (1=specialty fund, 0=all others). The omitted investment objective is domestic bond funds. Index is an indicator variable (1=index fund, 0=all others). Institutional is an indicator variable (1=institutional fund or class, 0=all others). Load is an indicator variable (1=front-end load, 0=all others). Multi-class is an indicator variable (1=multi-class, 0=single class funds). 12b-1 is the maximum 12b-1 fee

authorized.

	Total Expenses	Management Expenses
Constant	.83 (21.7)	1.02 (15.0)
Assets	-.095 (-24.0)	-.01 (-1.4)
1/Famsize	.752 (8.9)	
Ln Famsize	.	-.047 (-6.1)
Famnum	-.061 (-10.3)	.002 (0.2)
Turnover	.065 (12.1)	.04 (6.3)
Holdings	.035 (5.5)	.003 (0.5)
Age	.047 (5.9)	-.055 (-6.8)
Domestic Equity	.44 (31.6)	.175 (9.3)
Hybrid	.22 (11.4)	.064 (2.8)
International Bond	.308 (8.4)	.033 (0.4)
International Equity	.822 (48.4)	.319 (13.9)
Specialty	.621 (25.0)	.228 (7.9)
Index	-.454 (-12.1)	-.328 (-10.8)
Institutional	-.224 (-12.4)	-.096 (-5.3)
Load	-.064 (-4.5)	-.013 (-0.9)
Multi-class	.136	.014

	(8.6)	(1.0)
12b-1	.928 (48.7)	
Adj R ²	.56	.47
N	8,901	1,000

VII. APPENDIX TWO: EXPENSE RATIO TRENDS BY DISTRIBUTION

CATEGORY

Note: In the body of our report, we analyzed expense ratio trends for two distribution categories -- load funds and no-load funds. In this Appendix, we subdivide the no-load fund category into two subcategories -- pure no-load and extended no-load -- and restate the data accordingly.

Table 1
Number of Classes by Distribution Category

	Pure No-Load Classes	Extended No-Load Classes	Load Classes	Load Classes Percent of Total
1979	201	-	316	61%
1992	750	-	1,530	67%
1995	2,043	2,380	4,302	64%
1996	2,135	2,506	4,459	64%
1997	2,121	2,576	4,415	63%
1998	2,601	3,229	5,184	62%
1999	2,871	3,418	5,483	62%

Table 2
Class Assets by Distribution Category

(\$ Millions)

	Pure No-Load Classes	Extended No-Load Classes	Load Classes	Load Classes Percent of Total
1979	\$15,451	-	\$36,204	70%
1992	\$254,062	-	\$628,617	71%
1995	\$868,541	\$916,401	\$1,158,001	56%
1996	\$1,021,953	\$1,076,530	\$1,293,730	55%
1997	\$1,299,859	\$1,384,483	\$1,617,017	54%
1998	\$1,634,974	\$1,751,804	\$1,807,092	51%
1999	\$2,130,312	\$2,259,836	\$2,196,776	49%

Tables 1 and 2 show that 84% of the classes in the extended no load category are "pure" no-load classes (classes with no 12b-1 fee) and they account for 94% of the assets. In 1999, 547 (16%) of extended no-load classes charged a 12b-1 fee. These funds accounted for 6% of category assets. These figures represent a slight increase compared to 1995, when 337 (14%) of extended no-load classes had a 12b-1 fee and these funds

accounted for 5% of category assets.

Table 3
Weighted Average Expense Ratios by Distribution Category

	Pure No-Load Classes	Extended No-Load Classes	Load Classes
1979	.75%	-	.72%
1992	.80%	-	1.02%
1995	.74%	.76%	1.17%
1996	.73%	.75%	1.17%
1997	.70%	.72%	1.14%
1998	.66%	.68%	1.12%
1999	.69%	.72%	1.17%

Table 3 shows the trend in average expense ratio by distribution category over the study period. (Expense ratios are weighted by asset size in all cases.) The expense ratio of the average pure no-load class rose from 75 basis points in 1979 to 80 basis points in 1992, before declining to 74 basis points in 1995, 70 basis points in 1997, 66 basis points in 1998, before rising to 69 basis points in 1999. The inclusion in the extended no-load category of classes with 12b-1 fees of 1-25 basis points seems to have added 3 basis points to the average expense ratio in 1999.

FOOTNOTES

¹ This Report presents the results of an analysis of fee data for all stock mutual funds and bond mutual funds that were in our database at the end of 1979, 1992, 1995, 1996, 1997, 1998, and 1999; and for which data were available. Money market funds are excluded from the analysis because they have a different cost structure. Also excluded are the underlying mutual funds of insurance company separate accounts, closed-end investment companies, unit investment trusts, and face amount certificate companies. For an explanation of the data items used in the study, see *infra* Section III.B.3.

² The Random House College Dictionary defines a fee as "a charge or payment for services," Random House College Dictionary 484 (Revised 1st Ed. 1982), and defines an expense as any "cost or charge." *Id.* at 465. We use the terms interchangeably in this report.

³ Retirement assets invested in mutual funds have increased from \$300 billion in 1991 to almost \$2.5 trillion in 1999. See Investment Company Institute, Mutual Fund Fact Book 50 (2000) (hereinafter "ICI Fact Book"). See also Karen Damato, *Facing the Future of Funds*, Wall St. J., Jan. 10, 2000, at R1 (discussing generally the increasing importance of the mutual fund industry during the 1990s).

⁴ See ICI Fact Book, *supra* note 3, at 69.

⁵ The number of funds represents the number of stock, bond and money market fund portfolios as of the end of the year. *Id.* at 71.

⁶ See Investment Company Institute, *Fundamentals: Investment Company Research in Brief*, Aug. 2000 at 1 (number of fund shareholders) (hereinafter "Fundamentals"); ICI Fact Book, *supra* note 3, at 67 (value of fund assets); Federal Reserve Board, *Financial and Business Statistics*, 85 Fed. Reserve Bull. A1, A15 (May 1999) (value of commercial bank assets).

⁷ See fundamentals, *supra* note 6, at 1.

⁸ See ICI Fact Book, *supra* note 3, at 50-51.

⁹ See, e.g., John C. Bogle, *Do Mutual Funds Charge You Too Much?*, *Mutual Funds*, Oct. 1998, at 80; Amy C. Arnott, *The Rising Tide*, *Morningstar Mutual Funds*, Oct. 11, 1996, at S1-S2.

¹⁰ ICI Fact Book, *supra* note 3, at 30.

¹¹ The GAO report, *Mutual Fund Fees: Additional Disclosure Could Encourage Price Competition*, GAO/GGD-00-126 (General Accounting Office, June 2000) (hereinafter "GAO Report"), was delivered to the Chairman of the House Subcommittee on Finance and Hazardous Materials and the Ranking Member of the House Commerce Committee in June 2000.

¹² However, Section 36(b) of the Act, 15 U.S.C. § 80a-35(b) (2000), authorizes the Commission to sue fund advisers that breach their fiduciary duty with respect to their receipt of compensation from a fund.

¹³ See, e.g., Dan Moreau, *SEC Watches Over Mutual Fund Industry*, *Investor's Bus. Daily*, June 15, 1999, at B1; Carole Gould, 'Truth in Advertising' for *Mutual Funds*, *N.Y. Times*, Apr. 17, 1988, § 3, at 11; Jane Bryant Quinn, *New Mutual Fund Table is Valuable Tool for Investors*, *St. Petersburg Times*, May 12, 1988, at 19A; Bill Sing, *Rules Offer Some Help on Shopping for Funds*, *L.A. Times*, Apr. 30, 1988, § 4, at 3; Jan M. Rosen, *Comparing Costs of Mutual Funds*, *N.Y. Times*, Jul. 30, 1988, at 34.

¹⁴ See GAO Report, *supra* note 11, at 97-98.

¹⁵ These data are the type of fee information that GAO recommended that investors be given. See GAO Report, *supra* note 11, at 97 (second alternative).

¹⁶ See *infra* p. 74.

¹⁷ See Disclosure of Mutual Fund After-Tax Returns, Investment Company Act Release No. 33-7809, 65 Fed. Reg. 15,500 (Mar. 15, 2000).

¹⁸ Most notably, in 1970 Congress enacted Section 36(b) of the Investment Company Act to impose on advisers a fiduciary duty with respect to the amount of compensation that they receive; amended Section 15(c) to strengthen the ability of directors to scrutinize advisory contracts, and enacted Section 2(a) (19) to strengthen the standards for determining who may serve as an "independent" fund director. See Investment Company Act Amendments of 1970, Pub. Law No. 91-547, 84 Stat. 1413 (1970). See also

S. Rep. 91-184 (1970), reprinted in 1970 U.S.C.C.A.N. 4897 (legislative history of the 1970 amendments); Division of Investment Management, Protecting Investors: A Half Century of Investment Company Regulation 257 n.14 (May 1992) (hereinafter "Protecting Investors").

¹⁹ The organizing entity might be an entity other than an adviser, such as a fund's administrator or its principal underwriter, which sells the fund's shares pursuant to an underwriting contract with the fund.

²⁰ As enacted in 1940, the Investment Company Act had few limits on mutual fund fees, including sales loads and advisory fees. The Investment Company Act included a general prohibition on unconscionable or grossly excessive sales loads (that was modified in 1970 to prohibit excessive sales loads), to be defined by a securities association. See Investment Company Act of 1940, Pub. L. No. 76-768, § 22(b), 54 Stat. 789, 823 (1940) (codified as amended at 15 U.S.C. § 80a-22 (2000)); Investment Company Amendments Act of 1970, Pub. L. No. 91-547, § 12, 84 Stat. 1413, 1422 (1970) (codified as amended at 15 U.S.C. § 80a-22 (2000)). For example, in *Saxe v. Brady*, 184 A.2d 602 (Del. Ch. 1962), a leading case under the original Section 36, the court noted that because fund shareholders were properly informed of all material facts, plaintiffs had the burden of proving that the fee was so out of proportion to the value of services rendered as to make it unconscionable. Moreover, because the requisite disclosures to shareholders had been made, the court held that "corporate waste" and not fairness was the appropriate standard by which fees should be judged. The court made this finding even though it noted that:

[The adviser's] profits are certainly approaching the point where they are outstripping any reasonable relationship to expenses and effort even in a legal sense. And this is so even after making due allowance for incentive and benefit presumably conferred. This is not to say that no payment is justified after a fund reaches a particular size. It is only to say that the business community might reasonably expect that at some point those representing the fund would see that the management fee was adjusted to reflect the diminution of the cost factor.

Id. at 610. See also William P. Rogers and James N. Benedict, *Money Market Fund Management Fees: How Much is Too Much?*, 57 N.Y.U. L. Rev. 1059, 1074-88, & nn.79-88 (generally discussing the *Saxe* case). The National Association of Securities Dealers ("NASD") has promulgated a rule prohibiting NASD members from selling mutual fund shares if the sales charges on the shares exceed specified caps. See NASD Rule 2830, NASD Manual, (CCH) ¶ 4621 (2000).

²¹ *Burks v. Lasker*, 441 U.S. 471, 484 (1979).

²² Section 10(a) of the Investment Company Act of 1940, Pub. L. No. 76-768, § 10(a), 54 Stat. 789, 806 (1940) (codified as amended at 15 U.S.C. § 80a-10 (2000)).

²³ Section 15(a) of the Investment Company Act generally makes it unlawful for any person to serve as an investment adviser to a fund except pursuant to a written contract that has been approved by a majority of the fund's outstanding voting securities and a majority of the fund's independent directors. Typically, the adviser, as the initial shareholder of the fund, initially

approves the contract. After the initial two-year contractual period, Section 15 requires that the contract be renewed annually by a majority of the fund's independent directors or its shareholders. Similarly, Section 15 requires that the fund's underwriting contract be approved annually by a majority of the fund's independent directors. See 15 U.S.C. § 80a-15 (2000).

²⁴ Section 15(c) of the Investment Company Act, 15 U.S.C. § 80a-15(c) (2000).

²⁵ See Protecting Investors, *supra* note 18, at 256-258 (discussion of board evaluation of mutual fund fees). See *infra* pp. 20-21, for a discussion of the factors that directors consider when reviewing investment advisory contracts.

²⁶ Rule 12b-1(b) under the Investment Company Act, 17 C.F.R. § 270.12b-1(b) (2000). A Rule 12b-1 plan also must be approved by a majority of the outstanding voting securities of the fund. See 17 C.F.R. § 270.12b-1(b)(1) (2000).

²⁷ Rule 12b-1 addresses the potential conflicts of interest between a fund and its investment adviser that are created when a fund bears its own distribution expenses. An investment adviser that receives an asset-based advisory fee has an incentive to increase the amount of the fund's assets because the fee received would become larger as assets grow. As a result, an investment adviser often will pay for marketing expenses itself in order to increase the asset size of the fund. When a fund pays its own distribution expenses through a 12b-1 plan, both the adviser and fund shareholders may benefit from the increased size of the fund, but the adviser is spared the cost of paying for the distribution expenses itself.

²⁸ We note that the NASD has imposed an annual cap on asset-based sales charges of 0.75% of average annual net assets and an additional 0.25% for service fees. See NASD Rule 2830, NASD Manual, (CCH) ¶ 4621 (2000). The NASD took this action to assure that shareholders paying for distribution indirectly through Rule 12b-1 fees would pay no more than shareholders paying for distribution directly through front-end loads. See Form 19b-4, Notice of Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to the Limitation of Asset-Based Sales Charges as Imposed by Investment Companies, Exchange Act Release No. 29,070, 48 S.E.C. Docket 976 (Apr. 12, 1991).

²⁹ In the adopting release to rule 12b-1, the Commission identified certain factors that the directors should consider, if applicable, when reviewing and approving a rule 12b-1 plan. Among other factors, the Commission stated that directors should consider the nature of the problems or circumstances which purportedly make implementation or continuation of such a plan necessary or appropriate; consider the causes of such problems or circumstances; and consider the way in which the plan would address these problems or circumstances and how it would be expected to resolve or alleviate them, including the nature and approximate amount of the expenditures; the relationship of such expenditures to the overall cost structure of the fund; the nature of the anticipated benefits, and the time it would take for those benefits to be achieved. See Bearing of Distribution Expenses by Mutual Funds, Investment Company Act Release No. 11,414, 45 Fed. Reg. 73,898, 73,904 (Oct. 28, 1980). In addition, the Commission stated that directors should consider the possible benefits of the plan to other

persons compared to those expected to inure to the fund, and, in the case of a decision on whether to continue a plan, whether the plan has in fact produced the anticipated benefits for the fund and its shareholders. *Id.*

³⁰ Because an adviser's duty under Section 36(b) applies to all fees received by the adviser and its affiliates, a fund's board of directors should review the dollar amounts paid and the services performed under any service contract between the company and the adviser or its affiliates. See Protecting Investors, *supra* note 18, at 258 and nn.23-24.

³¹ See S. Rep. No. 91-184 (1969), reprinted in 1970 U.S.C.C.A.N. 4897.

³² Congress adopted Section 36(b) as part to the 1970 amendments to the Investment Company Act in response to concerns that advisory fees were not subject to usual competitive pressures because of the external management of mutual funds. The Commission had recommended amendments that, among other things, required that compensation received by affiliated persons of investment companies for services furnished to the company be reasonable and that this standard be enforceable in the courts. Rather than impose a reasonableness standard, however, Congress imposed the fiduciary duty of Section 36(b). See Protecting Investors, *supra* note 18, at 317-19 (discussion of legislative history of Section 36(b)).

³³ See Section 36(b) of the Investment Company Act, 15 U.S.C. § 80a-35(b) (2000). See also *Krinsk v. Fund Asset Mgmt., Inc.*, 715 F. Supp. 472, 485 (S.D.N.Y. 1988), *aff'd*, 875 F.2d 404 (2d Cir. 1989).

³⁴ See *Krinsk*, 875 F.2d at 412; *Schuyt v. Rowe Price Prime Reserve Fund, Inc.*, 835 F.2d 45 (2d Cir. 1987); *Gartenberg v. Merrill Lynch Asset Management, Inc.*, 694 F.2d 923, 930 (2d Cir. 1982); *Kalish v. Franklin Advisers, Inc.*, 742 F. Supp. 1222 (S.D.N.Y. 1990), *aff'd* 928 F.2d 590 (2d Cir. 1991).

³⁵ See *Gartenberg*, 694 F.2d at 928; *Krinsk*, 875 F.2d at 409.

³⁶ See *Krinsk v. Fund Asset Mgmt., Inc.*, 875 F.2d 404 (2d Cir. 1989).; *Schuyt v. Rowe Price Prime Reserve Fund, Inc.*, 835 F.2d 45 (2d Cir. 1987); *Gartenberg v. Merrill Lynch Asset Management, Inc.*, 694 F.2d 923, 930 (2d Cir. 1982); *Kalish v. Franklin Advisers, Inc.*, 742 F. Supp. 1222 (S.D.N.Y. 1990). Although the courts note that fees charged by other funds is not the principal factor to be considered in evaluating a fee under Section 36(b), such comparative information is significant.

³⁷ Section 8 of the Investment Company Act requires mutual funds to register with the Commission. 15 U.S.C. § 80a-8 (2000). If the fund is conducting a public offering of its shares, it also must file a registration statement to register the offering of those shares under the Securities Act of 1933 ("Securities Act"). Form N-1A is used by a mutual fund both to register the fund under the Investment Company Act and to register the offering and sale of shares under the Securities Act. The registration statement includes the fund's prospectus.

³⁸ Consolidated Disclosure of Mutual Fund Expenses, Investment Company Act Release No. 16,244, 53 Fed. Reg. 3192 (Feb. 1, 1988) (adopting

release); Investment Company Act Release No. 15,932, 52 Fed. Reg. 32018 (Aug. 18, 1987) (reproposing release); Investment Company Act Release No. 14,230, 49 Fed. Reg. 45171 (Nov. 9, 1984) (proposing release).

³⁹ Registration Form Used by Open-End Management Investment Companies, Investment Company Act Release No. 23,064, 63 Fed. Reg. 13916 (Mar. 13, 1998) (hereinafter "Form N-1A Adopting Release").

⁴⁰ The fee table is Item 3 of Form N-1A.

⁴¹ The Commission also made several improvements to the fee table itself. For example, in order to give investors clearer information about the long-term costs of an investment, the Commission modified the manner in which a fund may show the effect of expense reimbursements and fee waiver arrangements that temporarily reduce costs. See Form N-1A Adopting Release, *supra* note 39, at 13924-25.

⁴² See SEC Chairman Arthur Levitt, *Sept. 28, 1998 Testimony before the Subcomm. on Finance and Hazardous Materials of the House Comm. on Commerce*, (visited Nov. 8, 2000) www.sec.gov/news/testimony/tsty1398.htm (concerning transparency in the United States debt markets and mutual fund fees and expenses).

⁴³ See also Investment Company Institute, Report of the Advisory Group on Best Practices for Fund Directors: Enhancing a Culture of Independence and Effectiveness (June 24, 1999).

⁴⁴ Role of Independent Directors of Investment Companies, Investment Company Act Release No. 24,082, 64 Fed. Reg. 59826 (Oct. 14, 1999).

⁴⁵ Interpretive Matters Concerning Independent Directors of Investment Companies, Investment Company Act Release No. 24,083, 64 Fed. Reg. 59877 (Oct. 14, 1999).

⁴⁶ See *Mutual Fund Investing: Look at More than A Fund's Past Performance* (last modified Jan. 1, 2000) <http://www.sec.gov/consumer/mperf.htm>.

⁴⁷ *Mutual Fund Cost Calculator* (last modified Sept. 6, 2000) <http://www.sec.gov/mfcc/mfcc-int.htm>. During the first quarter of 2000, the calculator averaged over 8,500 hits per month - making it one of the most frequented portions of the Commission's web site.

⁴⁸ *Investment Options* (last modified Sept. 7, 2000) <http://www.sec.gov/consumer/investop.htm>.

⁴⁹ Investment Company Institute, *Frequently Asked Questions About Mutual Fund Fees* (1998) http://www.ici.org/pdf/mf_fee_faqs.pdf.

⁵⁰ *Financial Facts Tool Kit* (last modified Apr. 21, 1999) www.sec.gov/consumer/tookit.htm.

⁵¹ *Invest Wisely, An Introduction to Mutual Funds, Advice from the U.S. Securities and Exchange Commission* (last modified Aug. 1, 2000)

www.sec.gov/consumer/inwsmf.htm.

⁵² Search Key Topics (continuously updated)

<http://www.sec.gov/answers.shtml>. See, e.g., *Mutual Fund Fees and Expenses* (last modified Oct. 19, 2000)

<http://www.sec.gov/answers/mffees.htm>. Investors can also order a hard copy of this brochure by calling the SEC's toll-free publications line at 800-SEC-0330.

⁵³ Disclosure of Mutual Fund After-Tax Returns, Investment Company Act Release No. 24,339, 65 Fed. Reg. 15500 (Mar. 15, 2000).

⁵⁴ See Scott Cooley, *Revisiting Fund Costs: Up or Down*, Morningstar Mutual Funds, Feb. 21, 1999, at S1-S2. The fund groups are American Funds, Fidelity, and Vanguard. For information about the relative asset-weighted ownership cost of 30 large fund groups, see the data table at <http://www.morningstar.com/news/MS/Commentary/990219com.msnhtml> (visited Feb. 26, 1999).

⁵⁵ See Lipper Inc., Lipper Directors' Analytical Data app. (1st ed. 2000) (Summary Table by Complex). The asset figures include stock, bond, and money market mutual funds and exclude underlying mutual funds of insurance company separate accounts. For stock funds, the market share of the three fund families in 1998 was 35%. See John Rekenhaller, *Which Way is Up? The Debate About Fund Costs* (visited Dec. 23, 1998), <http://www.morningstar.com/news/MS/IvoryTowers/981223Rek.msnhtml>.

⁵⁶ See Janet Novack, *Custom-made Mutual Funds*, (visited Sept. 11, 2000) <http://www.forbesbest.com/0911/072.htm>

⁵⁷ See *New online brokers let you build your own mutual fund at a bargain price*, S.F. Chron. (visited Aug. 1, 2000) <http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2000/08/01BU107294.DTL>. For a description of FOLIO[®], one version of this type of product, see Financial Research Corp., *Shake and Bake Mutual Funds: Technology Enables Creation of Individualized Mutual Funds*, Mutual Fund Cafe (visited Nov. 8, 2000) http://www.mfcafe.com/pantry/bps_062600.html.

⁵⁸ In what may be a sign of things to come, the Vanguard Group recently announced that it would reduce the fees charged to fund shareholders with large account balances and long holding periods - generally speaking, a fund's preferred customer-base. Fees paid by large, long-term investors in one fund, the Vanguard Index 500, for example, would be reduced from 18 basis points to 12 basis points. One commentator speculates that this reduction is an attempt to compete with ETFs. Dan Culloton, *Vanguard Lets Big Retail Investors Become Admirals*, (visited July 26, 2000) <http://www.morningstar.com/news/Wire/0,1230,2393,00.html>. The fee rate charged to holders of the largest ETF, Standard & Poor's Depository Receipts Trust, Series 1 -- popularly known as Spiders -- is 12 basis points.

⁵⁹ The management expense ratio is the dollar amount of a fund's management expenses divided by its average net assets. Management expenses include payments made by the fund to its investment adviser (or to affiliates of the adviser) for investment management, administrative or other

services. See *infra* Section III.B.1 (What Costs are Included in a Fund's Expense Ratio?)

⁶⁰ Some funds define the term management fee narrowly, to cover only the cost of selecting portfolio securities. These funds pay for administration, record keeping, and other services under separate contracts with other service providers. Other funds define the management fee broadly, to cover a variety of administrative and other services, in addition to expenses associated with selecting portfolio securities. A few funds have "unified" fees under which the management fee pays for all fund expenses (the management fee is equal to the expense ratio). Thus, if Fund A has a higher management fee than Fund B, it may mean that Fund A pays a higher fee to its adviser. Alternatively, it may mean that Fund A's management fee pays for services that are provided and charged for separately by Fund B's adviser, an affiliate of the adviser, or outside contractors.

⁶¹ Rule 12b-1 fees are most commonly used to pay for sales commissions, printing prospectuses and sales literature, advertising, and similar expenses. Some funds, however, adopt 12b-1 fees to cover expenses considered by other funds to be advisory or administrative expenses for which no plan may be required. To complicate the issue further, a fund might pay broker-dealer firms under a 12b-1 plan for services provided to fund shareholders who are the broker-dealer's customers while paying banks under an administrative agreement for providing the same services to fund shareholders who are bank customers. In addition, because it is unclear what expenses are properly considered distribution expenses, some funds, out of an abundance of caution, adopt "defensive" 12b-1 plans. Defensive plans exist solely to ensure that if a court found any fund operating expense to be also a distribution expense, the expense would be covered under a 12b-1 plan. The result: some funds have 12b-1 plans although no assets are used for distribution purposes. Similarly, other funds, that do use their assets to pay for distribution, extend their 12b-1 plans to cover operating expenses as well.

⁶² See Protecting Investors, *supra* note 18, at 320-26.

⁶³ The sales load -- representing the difference between the price per share at which fund shares are offered to the public and the net amount per share invested in the fund -- is retained by a fund's principal underwriter and/or the selling broker-dealer and no part is paid to the fund. The sales load is used to finance the broker's commissions, other sales and promotional expenses, and the underwriter's profit (if any).

⁶⁴ During the 1970s, the Commission received a number of requests to allow fund assets to be used to pay for distribution. Reasons cited to approve these requests included rising net redemptions, growing public resistance to high front-end sales loads, the increased popularity of no-load funds, and the availability of competing investment products without front-end loads. Another rationale was that use of fund assets for distribution expenditures would result in a net flow of cash into funds, and in turn, economies of scale and more effective portfolio management. In 1979, after extensive consideration, the Commission proposed rule 12b-1, stating that funds should be permitted to bear distribution expenses if they were disclosed and regulated. Bearing of Mutual Fund Expenses by Shareholders, Investment Company Act Release No. 10,862, 44 Fed. Reg. 54014 (Sept. 17, 1979). The Commission adopted rule 12b-1 in October 1980. Bearing of Distribution

Expenses by Mutual Funds, Investment Company Act Release No. 11,414, 45 Fed. Reg. 73898 (Oct. 28, 1980).

⁶⁵ Investment Company Institute, Statement of the Investment Company Institute Regarding the Operation of Rule 12b-1 Plans, 23 (Aug. 8, 1986).

⁶⁶ See Protecting Investors, *supra* note 18, at 294.

⁶⁷ Many fund families offer their funds in a multi-class structure. One common structure consists of a share class with a front-end load and a small 12b-1 fee, commonly referred to as "A Shares"; a share class with a CDSL and a larger 12b-1 fee that expires after, typically, 5-8 years, commonly known as "B Shares"; and a share class with a larger 12b-1 fee that never expires, but no front-end load or CDSL, commonly referred to as "C shares".

⁶⁸ Order Approving Proposed Rule Change Relating to the Limitation of Asset-Based Sales Charges as Imposed by Investment Companies, Securities Exchange Act Release No. 30,897, 57 Fed. Reg. 30985 (July 7, 1992).

⁶⁹ A basis point is equal to 1/100 of 1%.

⁷⁰ See *infra* Section III.C.4 for a further discussion of total shareholder cost analysis.

⁷¹ Although we attempted to use all available data, we eliminated some funds from the study because of missing data. For example, in 1999 the *Morningstar Principia Pro* database included observations for 11,078 classes. We excluded 2,177 classes because they were missing data for one or more of the variables in our regression. There were 1,084 classes without values for the expense ratio, and another 1,093 classes without values for one or more of the independent variables. This left us with 8,901 classes for which we have complete data.

⁷² The Morningstar databases use fund classes, rather than funds as the basic data item. The ramifications of this approach are discussed below and *infra*, note 97.

⁷³ See *supra* note 67 and accompanying text.

⁷⁴ Master-feeder arrangements are another organizational structure that is designed to offer additional choice to fund investors. Like a "regular" mutual fund, a master fund invests in stocks, bonds, and other portfolio securities. Unlike a regular mutual fund, the master fund distributes its shares not directly, but through other funds (feeder funds). A feeder fund sells its shares to the public, but invests only in shares of the master fund. Feeder funds, like classes, may offer varying levels of service or alternative ways of paying for distribution costs. The *Morningstar Principia Pro* database includes feeder funds as separate observations. *Principia Pro* identified 556 feeder funds with total assets of more than \$200 billion as of March 31, 2000.

⁷⁵ Although investors purchase shares of a specific class and incur that classes' expenses, analysis of fund expenses at the class level can sometimes produce anomalous results. Consider the following example: Class S of Big

Fund, Inc. (Big Fund: S) is a small (in terms of asset size) share class of a very large fund. Small Fund, Inc. is identical to Big Fund: S in all respects (same asset size, investment objective, etc.) except that it is a stand-alone fund. Big Fund: S is likely to have a lower expense ratio than Small Fund, Inc. because Big Fund: S is likely to benefit from scale economies that are produced by Big Fund's other, larger classes. A mutual fund expense analysis that is performed at the class level would incorrectly identify Big Fund: S as a small fund with low expenses, when it may more appropriately be identified as a large fund with low expenses.

⁷⁶ In constructing our econometric model, we consider each class of a multi-class fund to have an asset size equal to the sum of the assets of all the classes that share a common investment portfolio. See *infra*, note 98 and accompanying text.

⁷⁷ All mutual funds are required to provide reports to shareholders, including expense ratios, 60 days after the end of their fiscal years. To capture data on a calendar year basis, we used Morningstar data for the end of March.

⁷⁸ Although we recognize that the sample may not adequately portray the experience of smaller funds, we believe that the sample reflects the results that are likely to be experienced by funds with the most assets and the most shareholders.

⁷⁹ For this analysis, multiple-class funds were evaluated at the fund level because all classes of a multiple class fund are subject to a single management contract.

⁸⁰ An equally weighted average assumes that all members of a population are equally important and gives equal weight to all data points. In populations where some members are more important than others, an average that gives more weight to the more important members (weighted average) may be more appropriate.

⁸¹ It would appear that the weighted expense ratio increased in 1999 as a result of the growth in assets of equity, international and specialty classes relative to bond classes. Assets of equity classes increased 2.9%, international classes increased 1.7% and specialty classes increased 2.0%, while assets of bond classes declined 6.6%. Because equity, international and specialty classes generally have higher expense ratios than bond classes, any increase in the proportion of assets in these investment categories would tend to increase the weighted average for all classes. See *infra*, Section III.C.5.

⁸² For a discussion of the extent to which lines between mutual fund distribution expense categories and marketing channels have become blurred, see Financial Research Corp., *The Alphabet Soup of Share Classes: Or Whatever Happened to Simplicity*, (visited Aug. 30, 2000) http://www.mfcafe.com/pantry98/bps_100598.html.

⁸³ We refer to classes that may call themselves no-load under current NASD rules as "extended no-load classes." The data for pure no-load classes and extended no-load classes are broken out separately in Appendix Two.

⁸⁴ Sales load data reported by Morningstar are the maximum sales loads charged.

⁸⁵ See John D. Rea and Brian K. Reid, *Trends in Ownership Cost of Equity Mutual Funds*, Investment Company Institute Perspective, Nov. 1998, at 4 ("Rea and Reid"). This study found that, for stock mutual funds, sales-weighted average shareholder costs decreased from 2.25% of new investments in 1980 to 1.49% of new investments in 1998 -- a decrease of almost 34%. Stock fund operating costs rose by 12 basis points during the period, however. Subsequent Investment Company Institute studies have yielded similar results. See generally, John D. Rea and Brian K. Reid, *Total Shareholder Cost of Bond and Money Market Mutual Funds*, Perspective, Mar. 1999, at 5; John D. Rea et al., *Operating Expense Ratios, Assets, and Economies of Scale in Equity Mutual Funds*, Perspective, Dec. 1999.

⁸⁶ Data about the maximum sales load that investors could pay are readily available. Data about the extent to which investors actually pay less than the maximum sales load (because they are eligible for discounts for large purchases, for purchases through retirement accounts, or for other reasons) are not available.

⁸⁷ Available data about investor holding periods are limited, and anecdotal evidence is contradictory. Looking first at the overall picture, during recent years, the annual redemption rate (redemptions as a percentage of average assets) for all stock funds has been 17-18%, implying an average holding period of just under 6 years. The annual redemption rate for all bond funds has been roughly 20%, implying an average holding period of 5 years (See ICI Fact Book, *supra* note 3, at 69, 87). A recent article in the trade press cited 5 years as the average mutual fund holding period. Gavin Daly, *Edward Jones Starts Selling Funds in U.K., Ignites.com*, (visited Dec. 13, 1999) <http://www.ignites.com>. Another article claimed 3 years as the average holding period for stock funds, citing a long-term study of investor behavior by Dalbar, Inc., a mutual fund research firm. *Stock Fund Investors Who Stay Put Double Returns: Dalbar*, Dow Jones News Svc., Dec. 8, 1999. Financial Research Corporation, another mutual fund research firm, concludes that, based on an analysis of figures published by the Investment Company Institute, the average holding period for mutual funds has declined from about 10 years in the early 1990s to a current holding period of two-and-a-half years. Financial Research Corp., *Is Three the Magic Number?*, Mutual Fund Café, (visited Oct. 9, 2000) <http://www.mfcafe.com/blue/bps.html>. Some observers believe that as access to information has increased and trading has become easier, the average holding period has declined. See, e.g., Darlene DeRemer, et al., *High Turnover May be Hurting Fund Company Profits*, Mutual Fund Café, (last modified Nov. 1998) http://www.mfcafe.com/pantry/is_1198.html. Others argue that a minority of active traders are skewing the statistics and that a large majority of fund shareholders are buy- and-hold, long term investors. See, e.g., Gavin Daly, *Fears about Short-Term Trading Called Overblown*, (visited Aug. 23, 2000) <http://www.ignites.com> (citing results from a study conducted by *Strategic Insight*, a mutual fund consulting firm). Of course, aggregate figures about average holding periods may conceal wide variations among different groups of investors and funds. For example, according to one recent article, the typical holding period for an investor who utilizes the Charles Schwab mutual fund supermarket is "...in the two-to-three year range." Bridget O'Brian and

Pui-Wing Tam, *More and More Dollars Flow to Hotshot Funds*, Wall St. J., June 7, 1999, at R1 (quoting Guy Mozkowsky, an asset-management analyst at Salomon, Smith Barney, Inc.) In contrast, other recent articles indicate that for one large load fund family the average holding period is 12 years; and that clients of one medium-size brokerage firm hold fund shares for more than 18 years, on average. Oster, *Capital Appreciation*, Smart Money, Mar. 1999, at 130-35.

⁸⁸ Rea and Reid used holding period estimates contained in a study performed by The Wyatt Company for the NASD in 1990. The Wyatt Company selected a random sample of stock and bond fund accounts that were opened in 1974 at funds with front-end loads and determined the percentage of the original share purchases that was redeemed in each of the subsequent 15 years. See Rea and Reid, *supra* note 85, at 7.

⁸⁹ E. Sirri and P. Tufano, *Competition and Change in the Mutual Fund Industry*, Financial Services: Perspectives and Challenges, 190-91 (1993).

⁹⁰ International funds invest in stocks and bonds of non-U.S. companies and governments. Specialty funds (sometimes referred to as sector funds) concentrate their investments in specific industries or industry sectors.

⁹¹ See, e.g., Andrew Leckey, *Market Sag Puts a Harsher Light on Fund Fees*, Chicago Tribune, Mar. 11, 2000, available in 2000 WL 3644678. *Are Your Managers Overpaid?*, Los Angeles Times, at S6, Oct. 10, 1999, available in 1999 WL 26182762. Scott Cooley, *Revisiting Fund Costs: Up or Down?*, Morningstar Mutual Funds, Feb. 21, 1999, at S1.

⁹² See Lipper Analytical Services, Inc., *The Third White Paper: Are Mutual Fund Fees Reasonable?* at 12-13 (Sept. 1997).

⁹³ Results of the econometric model presented in the next section differ from the results described in this section. The results of the model show that as funds get older, their expense ratios *increase*.

⁹⁴ A number of researchers have used similar mathematical models in their studies of issues related to mutual fund expenses. See, e.g., Stephen P. Ferris and Don M. Chance, "The Effect of 12b-1 Plans on Mutual Fund Expense Ratios: A Note," 42 J. Fin. 1081 (1987); Don M. Chance and Stephen P. Ferris, "Mutual Fund Distribution", 5 J. Fin. Services Res. 39 (1991); Charles Trzcinka and Robert Zweig, *An Economic Analysis of the Cost and Benefits of S.E.C. Rule 12b-1* at 22 (N.Y.U. Leonard School of Business Monograph Series in Finance and Economics No. 1990-1, 1991).

⁹⁵ The basic model is as follows:

$$E = a + b1 * \ln(\text{Assets}) + b2 * (1/\text{Famsize}) + b3 * \ln(\text{Famnum}) + b4 * \ln(\text{Turnover}) + b5 * \ln(\text{Holdings}) + b6 * \ln(\text{Age}) + b7 * \text{Equity} + b8 * \text{Hybrid} + b9 * \text{I Bond} + b10 * \text{I Equity} + b11 * \text{Specialty} + b12 * \text{Index} + b13 * \text{Institution} + b14 * \text{Load} + b15 * \text{Class} + b16 * 12b-1 + e$$

where:

E	=class's expense ratio
Ln(Assets)	=natural log of fund's net assets in millions
1/Famsize	=reciprocal of family net assets in millions
Ln(Famnum)	=natural log of number of funds in family
Ln(Turnover)	=natural log of class's turnover
Ln(Holdings)	=natural log of number of issues in class's portfolio
Ln(Age)	=natural log of fund's age in years
Equity	=an indicator variable that equals 1 if the fund is a domestic equity fund, 0 otherwise
Hybrid	=an indicator variable that equals 1 if the fund is a domestic hybrid fund, 0 otherwise
I Bond	=an indicator variable that equals 1 if the fund is an international bond fund, 0 otherwise
I Equity	=an indicator variable that equals 1 if the fund is an international equity fund, 0 otherwise
Special	=an indicator variable that equals 1 if the fund is a specialty fund, 0 otherwise
Index	=an indicator variable that equals 1 if the fund is an index fund, 0 otherwise
Institution	=an indicator variable that equals 1 if the class is an institutional class or fund, 0 otherwise
Load	=an indicator variable that equals 1 if the class has a front-end load, 0 otherwise
Class	=an indicator variable that equals 1 if the class is part of a multi-class fund, 0 otherwise
12b-1	=maximum 12b-1 fee
e	=error.

⁹⁶ We define a factor as important if its *t* test statistic is greater than the critical value, approximately 1.96. At this value, we are statistically confident 95% of the time that the attribute is associated with an effect on the expense ratio. The *t* test statistic for each expense factor is shown in Appendix One.

⁹⁷ Our approach of using classes, rather than funds, as a data item presents two problems in our regression analysis. First, it potentially gives more weight to the results of multi-class funds than to the results of single-class funds. Second, not all observations are independent of each other. One of the fundamental assumptions of regression analysis is that the observations are independent. While each class typically has its own expense ratio, many fund expenses, including the management fee, are incurred at the portfolio level and then allocated among a fund's classes typically based on the relative net assets of each class. Other expenses, including 12b-1 fees and some administrative fees, are incurred directly at the class level. Because a fund's classes bear many expenses in common, the operating expense ratios of a

fund's classes usually are very similar and frequently are identical. In addition, most of the independent variables in the model are identical across classes in the same fund. This lack of independence among observations may cause the regression analysis to understate the standard errors and overstate the t-statistics. To determine whether our approach led to erroneous conclusions, we also regressed a proxy for operating expenses (the expense ratio less the maximum 12b-1 fee) on the independent variables exclusive of the maximum 12b-1 fee. In this second model we used only one observation for each fund. For multi-class funds we used as the expense ratio variable the asset-weighted average operating expense ratio of all classes in the fund. The institutional and load variables were the proportion of assets in classes with these characteristics. The results of this model are not qualitatively different from the results presented in this section. The coefficients of the second model are very similar to those of the basic model and all remain statistically significant.

⁹⁸ Although each fund class is represented as a separate data item, with its own expense ratio, the asset size of each class is calculated as the sum of the assets of all classes that that we could identify as sharing a common investment portfolio. In other words, asset size is calculated at the fund level. The age of a fund is considered to be the age of the fund's oldest class.

⁹⁹ Our standard errors also may be biased downward because expense ratios among the funds in a fund family are likely not independent.

¹⁰⁰ The reader should note that, for certain factors (fund assets, number of funds in the fund family, number of portfolio holdings, and turnover) the associated variable in our model is the natural logarithm of the factor. For a second group of factors (those associated with a fund's investment category, whether not it is an index, institutional, or multi-class fund) the factor in the model is known as an indicator variable. That is, the value of the factor in the model can be only 1 or 0.

¹⁰¹ A number of funds that are part of very small fund families have, everything else equal, relatively high operating expense ratios. We did not observe a relationship between fund family assets and operating expense ratios for funds that are members of larger fund families (except, as noted in note 110, with respect to four large fund families). One way of capturing this relationship is to include as an independent variable the reciprocal of fund family assets. The t-statistic for the coefficient of the reciprocal of family assets is considerably larger than that obtained when the natural logarithm of fund family assets is used, further supporting the reciprocal as the better measure of the relationship.

¹⁰² If the coefficient were equal to 1.0, then everything else held constant, funds with 12b-1 fees would have expenses that are higher than the expenses of other funds by an amount that equaled the maximum 12b-1 fee.

¹⁰³ Management expenses consist of fees paid for investment advice and other services provided under a fund's management contract. Not all funds account for management expenses in the same way, however. Some funds define the management fee narrowly, to cover only the cost of selecting portfolio securities, while other funds define it more broadly, to cover a variety of administrative and other services. See *supra* Section III.B.1 (What Costs are included in a Fund's Expense Ratio?).

¹⁰⁴ The 1,000 classes included in the regression analysis represent approximately 82% of fund assets in 1999. The smallest class in the sample had assets of \$704 million in 1999. Although we recognize that the sample may not adequately portray the experience of smaller funds, we believe that the sample reflects the results that are likely to be experienced by the funds with the most assets and the most shareholders.

¹⁰⁵ See, e.g., Protecting Investors, *supra* note 18, at 256 n.12 ("Advisory fees typically are calculated as a percentage of assets under management, although the cost of providing investment advisory services -- consisting largely of salaries and overhead -- is relatively fixed (i.e., a portfolio manager can manage \$500 million nearly as easily as \$100 million.) An advisory fee that does not scale down as company assets increase consequently may yield enormous profits to the adviser, to the detriment of shareholders.").

¹⁰⁶ See *supra* note 60 and accompanying text.

¹⁰⁷ Although breakpoints are not legally required to be included in the advisory contract, "the fee structures of many funds have been specifically designed to pass along economies of scale by means of breakpoints." Statement of Matthew P. Fink, President, Investment Company Institute, before the Subcomm. on Finance and Hazardous Materials of the House Comm. on Commerce, Sept. 29, 1998, at 21-22, available in 1998 WL 18088868.

¹⁰⁸ See 2 Tamar Frankel, *The Regulation of Money Managers* 260 (1978).

¹⁰⁹ See *id.*

¹¹⁰ Although the magnitude of change in a fund's management expense ratio that is associated with changes in fund family asset size appears to be large, this result may be attributable to four large fund families. When we reran the regression model with the four fund families omitted, we found no statistically significant relationship between a fund's management expense ratio and the asset size of its fund family.

¹¹¹ Other fund attributes found to be important in explaining a fund's management expense ratio in 1999 were investment category, portfolio turnover, fund age, and whether or not a fund is an index fund or an institutional fund. Equity funds had higher management expense ratios than bond funds, and international and specialty funds had higher management expense ratios than equity funds. Funds with more portfolio turnover had higher management expense ratios. Older funds had lower management expense ratios than newer funds.

¹¹² The 100 largest fund portfolios had combined assets of \$1.4 trillion, in 1997, \$1.6 trillion in 1998, and \$2.0 trillion in 1999. The assets of these funds represented 47% of all stock and bond fund assets in 1997 and 45% of total assets in 1998, and 1999. We observed that during the three-year period some funds adjusted their breakpoints to account for more assets, and that in 1999 the funds in one large fund complex eliminated their fee breakpoint arrangements.

¹¹³ Investment Company Institute, *Mutual Funds and the Retirement Market*, Fundamentals: Investment Company Research in Brief, May 2000, at 1-2.

¹¹⁴ We recognize that not all expenses associated with 401(k) plans are included in mutual fund expense ratios.

¹¹⁵ Another option would be to mandate that mutual funds include in their prospectuses or shareholder reports a new standardized "ending-value" table. The ending value table would utilize historical information about a fund's expenses to illustrate how seemingly small changes in expenses can have a large impact on the amount of money accumulated for a long-term goal. For example, if a retirement saver invested \$5,000 per year starting at age 25, earned an average annual rate of return of 9% over 40 years, and incurred no expenses, his or her ending value would be \$1,841,459. If the same investment were subject to annual expenses of 50 basis points, his or her ending value would be reduced by more than \$257,000, or 14%.

The ending value table would compare the ending value after ten or twenty years of an investment (e.g., \$10,000) that incurred the fund's historical expense ratio, to the ending value of an investment that incurred an expense ratio of zero, 1%, or any other number mandated by Commission rule. The expense numbers would be applied to a standardized return such as 5% (the return used in the fee table example) or a number between 9-12% that would reflect the historical return on equities over the last 20-80 years. The table would enable investors to readily compare funds with respect to the long-term impact of fund expenses on the ending value of an account.

For more information about the long-term effect of expenses on the ending value of an investment account see Mamta Murthi, J. Michael Orzag, and Peter R. Orzag, *The Charge Ratio on Individual Accounts: Lessons from the U.K. Experience*, (Birkbeck College, University of London, Discussion Papers in Economics, Mar. 1999).

¹¹⁶ The Investment Company Institute produces a series of educational brochures, in English and Spanish, to help individuals make well-informed investment decisions. These include "Frequently Asked Questions About Mutual Fund Fees." In reference to efforts of the ICI to educate investors, Chairman Levitt recently stated, "[T]here is no better way to bring opportunity to more people than to educate them on the fundamentals of sound investing. By providing the guidance and resources for these programs, the ICI moves more Americans closer to realizing their long-term financial goals." SEC Chairman Arthur Levitt, *Address on the 60th Anniversary of the Investment Company Act and the Investment Company Institute*, Oct. 5, 2000 (last visited Dec. 15, 2000) <http://www.sec.gov/news/speeches/spch403.htm>.

¹¹⁷ KPMG Peat Marwick, LLP, *An Educational Analysis of Tax-Managed Mutual Funds and the Taxable Investor* 14 (1999). The KPMG study analyzed the performance of 496 domestic stock funds for the ten years ended December 31, 1997. The average annual total return for the median fund in this group was 16.1% before taxes and 13.5% after taxes. (The median fund is the fund at the midpoint of the frequency distribution. An equal number of funds have a higher or lower return than the median fund.) Annual performance given up to taxes ranged from a low of zero to a high of 5.6%, with a median of 2.6%.

¹¹⁸ See Role of Independent Directors of Investment Companies, Investment Company Act Release No. 24,082, 64 Fed. Reg. 59,826 (Nov. 3, 1999).

¹¹⁹ Information may be available from a variety of legal, accounting, and academic organizations. The Directors Program Committee of the Investment Company Institute sponsors a number of educational and information programs for fund directors. We also believe that the recently formed Mutual Fund Directors Education Council (described in Section II.B.2.) will serve as a useful source of information for fund directors. As part of the Council's plan to develop programs to promote a culture of independence and accountability in the boardroom, we recommend that the Council focus on the directors' role in negotiating fees and expenses.

¹²⁰ Any study of the costs of investment management would require fact-finding and analysis similar to that previously conducted by the Wharton School of Finance and Commerce ("Wharton School"). The Commission retained the Securities Research Unit of the Wharton School of Finance and Commerce of the University of Pennsylvania to make a fact-finding survey and report on certain aspects and practices of registered investment companies. See Investment Company Act Release No. 2,729, 1958 WL 5755 *1 (SEC) (Jun. 13, 1958). The Wharton School produced A Study of Mutual Funds, H.R. Rep. No. 2274, 87th Cong., 2d Sess. 491-95 (1962), which formed a basis for the 1970 amendments to the Investment Company Act.

¹²¹ As described *supra* in Section III.B., other fund costs that may be paid for outside of the fund's expense ratio include costs related to marketing and distribution, financial advice to fund investors, and maintenance of shareholder accounts. In many cases, some or all of these costs may be paid separately by the shareholder.

¹²² During the period 1989-1993, according to one study, the average stock fund paid annual brokerage commissions equal to 0.28% of net assets. This figure excludes the market impact costs of fund portfolio transactions, *i.e.*, changes in the price of a security that result directly from a fund's trading activity. See Miles Livingston and Edward O'Neal, *Mutual Fund Brokerage Commissions*, 19 J.Fin.Res. 272 (1996).

¹²³ Although a mutual fund's investment manager has an obligation to seek the best execution of securities transactions arranged for on behalf of the fund, the manager is not obligated to obtain the lowest possible commission cost. The manager's obligation is to seek to obtain the most favorable terms for a transaction reasonably available under the circumstances. See Securities Brokerage and Research Services, Exchange Act Release No. 23,170, 51 Fed. Reg. 16,004, 16,011 (Apr. 23, 1986). Section 15(c) of the Investment Company Act requires a fund's board of directors to request and review, and the fund's manager to supply, such information as may reasonably be necessary for the fund's board to evaluate the terms of the advisory contract between the adviser and the fund. Research and other services purchased by the adviser with the fund's brokerage bear on the reasonableness of the advisory fee because the research and other services would otherwise have to be purchased by the adviser itself, resulting in higher expenses and lower profitability for the adviser. Therefore, mutual fund advisers that have soft dollar arrangements must provide their funds' boards with information regarding their soft dollar practices. See SEC Office

of Compliance, Inspections and Examinations, Inspection Report on the Soft Dollar Practices of Broker/Dealers, Investment Advisers and Mutual Funds 30 (Sept. 22, 1998) (hereinafter "Soft Dollar Report").

¹²⁴ See Soft Dollar Report, *supra* note 123, at 5-6. Soft dollar arrangements developed as a means by which brokers discounted commission rates that were fixed at artificially high levels by exchange rules. Prior to 1975, institutional advisers took advantage of competition among brokers and their willingness to accept compensation lower than the fixed rates in order to recapture portions of the commissions paid on institutional orders. Fixed commission rates that far exceeded the costs of executing trades provided the fuel to support an increasingly complex pattern of practices to recapture portions of these commissions by advisers, including "give-ups" and other "reciprocal practices". Investment company managers directed give-ups to brokers that sold fund shares in order to motivate or reward such sales efforts. Fund managers also used give-ups as a reward for research ideas furnished by brokers to them in their capacity as investment advisers to funds. The Commission abolished the system of fixed commission effective May 1, 1975. Soon thereafter, Congress enacted Section 28(e) of the Securities and Exchange Act of 1934 in order to clarify that, under certain circumstances, an investment manager may pay more than the lowest available commission in recognition of research and other services provided by the broker-dealer. See *id.* at 6-7.

¹²⁵ All advisers, including the investment advisers of mutual funds, have an obligation to act in the best interests of their clients and to place client interests before their own. They also have an affirmative duty of full and fair disclosure of all material facts to their clients. See 15 U.S.C. § 80b-6 (2000) (Section 206 of the Investment Advisers Act of 1940); *S.E.C. v. Capital Gains Research Bureau*, 375 U.S. 180 (1963).

Some of the funds that engage in directed brokerage disclose the practice in the prospectus, the statement of additional information, and/or the annual report to shareholders. Others use the footnotes to the financial statements to make the disclosure. In 1995, the Commission adopted accounting rules which require funds to report all expenses gross of off-sets or reimbursements pursuant to a directed brokerage arrangement. See 17 C.F.R. § 210.6-07(g) (2000) (Rule 6-07(g) of Reg. S-X).

This requirement is designed to allow investors to compare expenses among funds.

¹²⁶ See generally Bearing of Distribution Expenses by Mutual Funds, Investment Company Act Release No. 11,414 (Oct. 28, 1980), 45 FR 73898 (hereinafter "Adopting Release"). When rule 12b-1 was adopted, the Commission stated the rule was intended to be flexible, and that the Commission would monitor and make adjustments as necessary. *Id.* at 22. Since 1980, the rule has not been substantively amended.

¹²⁷ See Joel H. Goldberg and Gregory N. Bressler, *Revisiting Rule 12b-1 under the Investment Company Act*, 31 Rev. Sec. and Commodities Reg., 147, 147-152 (1998).

¹²⁸ *Id.* at 151.

¹²⁹ See Adopting Release, *supra* note 126. See also *supra* note 29 and accompanying text.

¹³⁰ See Goldberg and Bressler, *supra* note 127, at 151.

¹³¹ See Goldberg and Bressler, *supra* note 127, at 151; Paul G. Haaga, Jr. and Michele Y. Yang, *Distribution of Mutual Fund Shares: Rule 12b-1*, (Practicing Law Institute '40 Act Institute, 1990).

¹³² See Goldberg and Bressler, *supra* note 127, at 151.

¹³³ See *supra* Section III.B.2.

¹³⁴ In a typical fund supermarket, the sponsor of the program - a broker-dealer or other institution - offers a variety of services to a participating fund and its shareholders. The services include establishing, maintaining, and processing changes in shareholder accounts, communicating with shareholders, preparing account statements and confirmations, and providing distribution services. For the services that it provides, the sponsor charges either a transaction fee to its customer or an asset-based fee, generally ranging from 0.25% to 0.40% annually of the average value of the shares of the fund held by the sponsor's customers. The asset-based fee is paid by the fund, its investment adviser, an affiliate of the adviser, or a combination of all three entities. See Letter from Douglas Scheidt, Associate Director of the Division of Investment Management to Craig S. Tyle, General Counsel of the Investment Company Institute (pub. avail. Oct. 30, 1998) at 2-4, *available in* 1998 WL 1543541 *2-4 (SEC 1998). (hereinafter "Investment Company Institute").

¹³⁵ See The Shareholder Services Group, Inc. (pub. avail. Aug. 12, 1992) and Investment Company Institute, *supra* note 134.

¹³⁶ See, e.g., Rochelle Kauffman Plesset and Diane E. Ambler, *The Financing of Mutual Fund 'B Share' Arrangements*, 52 Bus. Law. 1385 (1997); Tania Padgett, *First Union Group Plans to Cater to Cash Needs of Mutual Fund Firms*, American Banker, May 17, 1996, at 20; Michael Brush, *Are Managers Counting on a Rubber Stamp?*, N.Y. Times, Dec. 29, 1996, at F9.

¹³⁷ Some distributors sell their rights to receive certain 12b-1 fees to a commercial bank or a finance company. Other distributors securitize their 12b-1 fees by transferring the rights to receive certain 12b-1 fees to a special purpose entity. The entity, in turn, issues one or more classes of securities. The holders of these securities receive payments of interest and principal from the cash flows generated by the 12b-1 fees. See Plesset and Ambler, *supra* note 136, at 1398-1402, 1405.

¹³⁸ When investors and rating agencies evaluate the quality of asset-backed securities, a key criterion is the degree of assurance that the revenue stream of 12b-1 fees will remain uninterrupted over the life of the security. See Plesset and Ambler, *supra* note 136.

¹³⁹ See Adopting Release, *supra* note 126. See also *supra* note 29 and

accompanying text.

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